Clean Water Act • 208 Amendment

DRAFT

Application for Maricopa Association of Governments

Prepared for the City of Glendale, Town of Buckeye and Maricopa County to expand the service area for the Litchfield Park Service Company Palm Valley and Sarival Water Reclamation Facilities

Prepared by

WOOD/PATEL

August 30, 2005

Revised February 17, 2006

SERVICE AREA EXPANSION FOR THE LITCHFIELD PARK SERVICE COMPANY PALM VALLEY AND SARIVAL WATER RECLAMATION FACILITIES DRAFT 208 AMENDMENT

August 30, 2005

Revised February 17, 2006

WP #042027

Prepared for:

City of Glendale
5580 West Glendale Avenue
Glendale, AZ 85301

Town of Buckeye
100 North Apache
Buckeye, AZ 85326

Maricopa County
Environmental Services Department
Water and Waste Management Division
1001 North Central Avenue
Suite 150
Phoenix, AZ 85004

Prepared by:

Wood, Patel & Associates, Inc.
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EXECUTIVE SUMMARY

This proposed amendment to the MAG 208 Plan provides for an expansion of the service area for the Litchfield Park Service Company (LPSCo) Palm Valley and Sarival Water Reclamation Facilities in Maricopa County. A consortium of developers organized as the Northwest Valley Development Group (NVDG) has requested sewer service from LPSCo for lands lying north and west of the present LPSCo service area, and LPSCo has determined that their existing and planned facilities will accommodate those added flows. The general project area is shown in Exhibit 1.

LPSCo provides wastewater collection and treatment service for all of the City of Litchfield Park and portions of Avondale, Glendale, Goodyear and unincorporated Maricopa County as shown in Exhibit 2. The Palm Valley Wastewater Reclamation Facility (PVWRF) is in operation to serve the area and future expansion of this facility is planned. LPSCo also has constructed the Sarival Lift Station to bring wastewater from the western portion of its service area (and the expanded area covered by this proposed amendment) to the PVWRF initially. As flows increase, LPSCo plans to construct, and then expand, the Sarival Wastewater Reclamation Facility to provide added service. The series of steps over which these improvements are planned were covered in the MAG 208 Amendment dated August 28, 2000 and approved by MAG in 2001. The body of that amendment is contained here in Appendix A, and this amendment describes the proposed changes to the approved amendment. The earlier amendment is incorporated in the current MAG 208 Water Quality Management Plan dated October 2002.

This proposed amendment does not change the plans for treatment, effluent and waste solids disposal, or any of the other aspects of the Palm Valley and Sarival Water Reclamation Facilities as described in the MAG 208 Water Quality Management Plan. It only provides for expanding the service area as shown on Exhibit 3.

The average day wastewater flows generated from the expanded service when added to existing flows to LPSCo's treatment facilities will be less than the average day design flow capacity of those facilities cited in the 208 Water Quality Management Plan. The ultimate capacities for the Palm Valley and Sarival Water Reclamation Facilities will not increase due to the 38 percent reserve capacity reported in the August 2000 Amendment to the 208 Water Quality Management Plan.

LETTERS OF AUTHORITY, SPONSORSHIP, AND NO OBJECTION

Two communities lie within three miles of the service area expansion: Surprise and Goodyear. The City of Glendale, Town of Buckeye, and Maricopa County have requested that the MAG 208 Plan be amended to include the service area expansion for the Litchfield Park Service Company Palm Valley and Sarival Water Reclamation Facilities. The other cities have been contacted and requested to submit a "letter of no objection" to the proposed amendment, and their letters are also included in this Section.

GLENDALE

September 9, 2005

Ms. Julie Hoffman
Environmental Planner
Maricopa Association of Governments
302 N. 1st Avenue, Suite 300
Phoenix, Arizona 85003

FAX 602-254-6490

Subject: 208 Plan Amendment in Western Glendale Annexation Area

Dear Julie,

In accordance with the MAG 208 Water Quality Management Plan, the City of Glendale is officially requesting that you initiate the amendment process in accordance with the 'Litchfield Park Service Company Regional Sanitary Sewer 208 Amendment' dated August 30, 2005 prepared by Wood Patel (WP#04027). Glendale is interested in the provision of sewer service to the Savannah subdivision and other areas north of Camelback Road west of Cotton Lane by Litchfield Park Service Company.

We look forward to working with you and appreciate your assistance to facilitate the MAG approval process for this 208 Plan Amendment.

Sincerely,

Kenneth A. Reedy, P.E.
Deputy City Manager

Town of Buckeye

RECEIVED
JAN 17 2006
WOOD/PATEL

January 13, 2006

Ms. Julie Hoffman
Environmental Planner
Maricopa Association of Governments
302 N. 1st Avenue, Suite 300
Phoenix, Arizona 85003

Fax 602-254-6490

Re: MAG 208 Plan Amendment in Eastern Buckeye Area

Dear Julie,

In accordance with the MAG 208 Water Quality Management Plan, the Town of Buckeye is officially requesting that you initiate the amendment process in accordance with the "Litchfield Park Service Company Regional Sanitary Sewer 208 Amendment" dated August 30, 2005, prepared by Wood Patel (WP #04027). Buckeye is interested in the provision of sewer service to the areas north of Camelback Road and east of Jackrabbit Road and interim service within the Town in this vicinity from Litchfield Park Service Company.

We look forward to working with you and appreciate your assistance to facilitate the MAG approval process for this 208 Plan Amendment.

Sincerely,

C E Reynolds

Carroll Reynolds, P.E.
Town Manager

Cc: Tim Goodrich
Dave Violette

100 N. Apache • Buckeye, Arizona 85326 • (623) 386-4691 • FAX (623) 386-7832

Maricopa County

Environmental Services
Water and Waste Management Division

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RECEIVED
JAN 25 2006
WOOD/PATEL

January 23, 2006

Maricopa Association of Governments
302 North 1st Avenue, Suite 300
Phoenix, AZ 85003

Attention: Ms. Lindy Bauer, Environmental Program Coordinator

Re: Litchfield Park Service Company, Revised Service Area
Clean Water Act, MAG 208 Amendment

Dear Ms. Bauer:

Wood, Patel & Associates, Inc. has submitted a proposed MAG 208 Amendment Application dated August 30, 2005, with revisions dated November 15, 2005. The proposed Amendment is for an expansion of the Litchfield Park Service Company (LPSCo) service area to include lands that are primarily west of Perryville Road from Peoria Avenue south to Camelback Road. The lands include: the east half of T3N, R2W, Sections 28 and 33; the easterly half of T2N, R2W, Sections 4 and 9; T2N, R2W, Section 16; and parcels within T2N, R2W, Section 15.

The expanded area will be served by a regional gravity sewer that begins on Camelback Road west of Perryville Road and flows east along Camelback Road to Citrus Ave.; thence south along Citrus Ave. to Indian School Road; then east along Indian School Road to Cotton Lane; thence south along Cotton Lane to Interstate 10; and thence east to the existing Sarival Lift Station. The lift station will provide an average 2.0 MGD interim pumping to the Palm Valley Water Reclamation Facility until the Sarival WRF is constructed, as described in the October 2002, MAG 208 WQMP.

The proposed sewer will pass immediately south of the Russell Ranch WWTP, a facility that is owned and operated by Arizona American Water. The Russell Ranch facility was approved by the Department with the understanding that it would connect to a regional WWTP when such a facility becomes available. The proposed sewer will provide that opportunity.

The proposed service area revision complies with the MAG 208 Review and Approval Process under the MAG 208 Areawide Water Quality Management Plan. The project is not in conflict with Maricopa County plans for the area and it is acceptable, provided that LPSCo agrees to serve to the Russell Ranch WWTP, subject to the parties resolving all related regulatory, legal, and financial matters.

Please note that the Department has not reviewed, nor approved, the design of the facilities as part of the 208 review. Any technical issues that remain will need to be resolved during the design phase of the project. Approval to Construct (ATC) and Approval of Construction (AOC) must be obtained from this Department prior to start of

construction and startup, respectively, of all treatment, discharge, recharge, and reuse facilities, including all conveyance facilities and final end user facilities.

If you have any questions or comments, please feel free to contact Mr. Kenneth James, PE, or myself at 506-6666.

Sincerely,

Kenneth L. James P.E. for

Dale Bodiya, P.E.
Acting Manager, Water and Waste Management Division

cc: Dave Violette, Wood, Patel & Associates, 2051 W. Northern Ave., Suite 100, Phoenix, AZ 85021
Justin Rundle, Arizona American Water, 19820 N. 7th St., Suite 201 Phoenix, AZ 85024
Utilities Division - Engineering Section, Arizona Corporation Commission, 1200 W. Washington, Phoenix, AZ 85007-2996
File

Goodyear ARIZONA

October 6, 2005

Ms. Julie Hoffman
Maricopa Association of Governments
302 North 1st Avenue, Suite 300
Phoenix, AZ 85003

Subject: MAG 208 Amendment – No Objection Letter

Dear Ms. Hoffman:

The Litchfield Park Service Company (LPSCo) has submitted a Clean Water Act Section 208 Amendment that will modify wastewater service areas that are outside the service area for Goodyear but within three miles of it as shown in the current 208 Plan. Goodyear has reviewed the proposed amendment and has no objection.

We look forward to working with you and appreciate your assistance to facilitate the MAG approval process for this 208 Amendment.

Sincerely,

Brian Dalke for
ACM
Stephen Cleveland
City Manager

City Attorney's Office
190 N. Litchfield Road P.O. Box 5100 Goodyear, Arizona 85338
623-882-7227 Fax 623-882-7230 1-800-872-1749 TDD 623-932-6500
www.goodyearaz.gov

SURPRISE
ARIZONA

Water Services Department
12425 West Bell Road
Suite D-100
Surprise, Arizona 85374-9002
Phone 623-875-4290 / TDD 623-875-4208
Fax 623-583-2892

October 20, 2005

Ms. Julie Hoffman
Maricopa Association of Governments
302 North 1st Ave, Suite 300
Phoenix, AZ 85003

RE: MAG 208 Amendment – No Objection Letter

Dear Ms. Hoffman:

The Litchfield Park Service Company (LPSCo) has submitted a Clean Water Act Section 208 Amendment that will modify wastewater service areas that are outside the service area for Surprise but within three miles of it as shown in the current 208 Plan. Surprise has reviewed the proposed amendment and has no objection.

We look forward to working with you and appreciate your assistance to facilitate the MAG approval process for this 208 Amendment.

Sincerely,

Rich Williams, Sr.
Water Services Director

Cc: file

CLEAN WATER ACT CHECKLIST

Section 208 of the Clean Water Act governs the generation, adoption, and amendment of the regional water quality management plans, called "208 Plans". The following checklist lists the requirements of a 208 Plan amendment and how this report addresses them.

208 AMENDMENT CHECKLIST
Section 208 Clean Water Act
40 CFR Part 103.6

REQUIREMENT	PROVIDE BRIEF SUMMARY OF HOW REQUIREMENTS ARE ADDRESSED	ADDRESSED ON PAGE:
AUTHORITY		
Proposed Designated Management Agency (DMA) shall self-certify that it has the authorities required by Section 208(c) (2) of the Clean Water Act to implement the plan for its proposed planning and service areas. Self-certification shall be in the form of a legal opinion by the DMA or entity attorney.	Not applicable LPSCo is not a DMA	Not applicable
20-YEAR NEEDS		
{Clearly describe the existing wastewater treatment (WWT) facilities:}		
Describe the WWT facilities.	These are described in the August 2000 208 Amendment	Appendix A
Show WWT certified and service areas for private utilities and sanitary district boundaries if appropriate.	The service area expansion will not overlap WWT certified and service areas for private utilities and sanitary district boundaries	Exhibit 3
{Clearly describe alternatives and the recommended WWT plan:}		
Provide POPTAC population estimates over the 20-year planning period.	The estimated population for the service area expansion is 29,939 persons.	Page 6
Provide wastewater flow estimates over the 20-year planning period.	The estimated average day flow from the service area expansion is 3.0 MGD	Pages 6-7
Illustrate the WWT planning and service areas.	The existing service area is described in the August 2000 208 Amendment. This document describes only the proposed expansion.	Exhibit 3
Describe the type and capacity of the recommended WWT Plant.	This amendment does not include any recommended WWT Plants. Those are contained in the August 2000 208 Amendment	Appendix A

Identify water quality problems, consider alternative control measures, and recommend solution for implementation.	No water quality problems are expected to occur as a result of this service area expansion. Refer to the August 2000 208 Amendment regarding treatment.	Appendix A
If private WWT utilities with certificated areas are within the proposed regional service area, define who (municipal or private utility) serves what area and when. Identify whose sewer lines can be approved in what areas and when.	LPSCo will own and operate the sewage collection system in the proposed service area.	Page 7
Describe method of effluent disposal and reuse sites (if appropriate).	Effluent disposal is to be accomplished through golf course and agricultural irrigation for the two facilities. A secondary discharge system will be developed for both plants to allow for groundwater recharge of the underlying aquifer. An AZPDES permit will be required for the RID canal discharge proposed for the Sarival WRF.	Page 4, Appendix A
If Sanitary Districts are within a proposed planning or service area, describe who serves the Sanitary Districts and when.	LPSCo will own and operate the sewage collection system in the proposed service area.	Page 7
Describe ownership of land proposed for plant sites and reuse areas.	Covered in the August 2000 208 Amendment.	Appendix A
Address time frames in the development of the treatment works.	Palm Valley WRF, Phase I, 4.1 MGD 2001; Phase II, 4.1 MGD 2012. Sarival WRF Phase I, 4.1 MGD 2006; Phase II, 4.1 MGD 2016.	Page 7
Address financial constraints in the development of the treatment works	This amendment does not include any treatment recommendations. Those were contained in the August 2000 208 Amendment.	Appendix A
Describe how discharges will comply with EPA municipal and industrial storm water discharge regulations (Section 405, CWA).	Site-specific storm water will be retained on site for up to 100-year storm events.	Page 8, Appendix A
Describe how open areas and recreational opportunities will result from improved water quality and how those will be used.	The use of high quality effluent for irrigation will reduce the demand for groundwater.	Appendix A
Describe potential use of lands associated with treatment works and increased access to water-based	Not applicable	Not applicable

recreation, if applicable.		

REGULATIONS		
Describe types of permits needed, including NPDES, APP, and reuse.	None required for the service area expansion. A Permit to Construct has been obtained for the Regional Sanitary Sewer.	Page 7
Describe restrictions on NPDES permits, if needed, for discharge and sludge disposal.	The treated municipal wastewater point discharge from the facilities will be used for emergency only and will not be for daily operations	Appendix A
Provide documentation of communication with ADEQ Permitting Section 30 to 60 days prior to public hearing regarding the need for specific permits.	Not applicable	Not applicable
Describe pretreatment requirements and method of adherence to requirements (Section 208 (b) (2), CWA).	Raw wastewater is expected to be nearly 100% residential & light commercial. Industrial service connections will be required to comply with all pretreatment requirements.	Page 5
Identify, if appropriate, specific pollutants that will be produced from excavations and procedures that will protect ground and surface water quality (Section 208(b) (2) (K) and Section 304, CWA).	Not applicable	Not applicable
Describe alternatives and recommendation in the disposition of sludge generated. (Section 405 CWA)	This amendment will not affect treatment in any way - only service area.	Page 5, Appendix A
Define any nonpoint issues related to the proposed facility and outline procedures to control them.	None anticipated	Not applicable
Describe process to handle all mining runoff, orphan sites and underground pollutants, if applicable.	Not applicable	Not applicable
If mining related, define what specialized procedures will be initiated for orphan sites, if applicable.	Not applicable	Not applicable
If mining related, define what specialized procedures will be initiated for orphan sites, if applicable.	Not applicable	Not applicable

CONSTRUCTION		
Define construction priorities and time schedules for initiation and completion.	A service area expansion only is covered by this amendment. The Regional Sanitary Sewer is	Page 8

	scheduled for completion in April 2006	
Identify agencies that will construct, operate and maintain the facilities and otherwise carry out the plan.	LPSCo will be responsible for construction, operation, and maintenance.	Page 9
Identify construction activity-related sources of pollution and set forth procedures and methods to control, to the extent feasible, such sources.	The construction of the Regional Sanitary Sewer required a Stormwater Pollution Prevention Plan to control construction-related pollution..	Page 8

FINANCING AND OTHER MEASURES NECESSARY TO CARRY OUT THE PLAN		
If plan proposes to take over certificated private utility, describe how, when and financing will be managed.	Not applicable	Not applicable
Describe any significant measure necessary to carry out the plan, e.g., institutional, financial, economic, etc.	The NVDG will fund construction of the Regional Sanitary Sewer and dedicate it to LPSCo to own and operate.	Appendix F
Provide financial information to assure DMA has financial capability to operate and maintain wastewater system over its useful life.	LPSCo has provided its current financial statements.	Appendix F
Describe proposed method(s) of community financing.	No community financing involved.	Not applicable
Provide a time line outlining period of time necessary for carrying out plan implementation.	The Regional Sanitary Sewer is under construction and is expected to be completed in April 2006.	Page 7
Provide financial information indicating the method and measures necessary to achieve project financing. (Section 201 CWA or Section 604 may apply.)	The NVDG will fund construction of the Regional Sanitary Sewer and dedicate it to LPSCo to own and operate.	Page 9

IMPLEMENTABILITY		
Describe impacts and implementability of Plan:		
Describe impacts on existing wastewater (WW) facilities, e.g., Sanitary district, infrastructure/facilities and certificated areas.	Existing and planned facilities of LPSCo have the capacity to serve the expanded area.	Pages 6-7
Describe how and when existing package plants will be connected to a regional system.	Not applicable	Not applicable
Describe the impact on communities and businesses affected by the plan.	No significant impacts	Not applicable

If a municipal wastewater (WWT) system is proposed, describe how WWT service will be provided until the municipal system is completed: i.e., will package plants and septic systems be allowed and under what circumstances. (Interim services.)	Not applicable	Not applicable

PUBLIC PARTICIPATION		
Submit copy of mailing list used to notify the public of the public hearing on the 208 amendment. (40 CFR, Chapter 1, Part 25.5)	Public participation will be satisfied through the MAG 208 Plan Amendment Process.	Page 10
List location where documents are available for review at least 30 days before public hearing.	Public participation will be satisfied through the MAG 208 Amendment Process..	Page 10
Submit copy of the public notice of the public hearing as well as an official affidavit of publication from the area newspaper. Clearly show the announcement appeared in the newspaper at least 45 days before the hearing.	Public participation will be satisfied through the MAG 208 Amendment Process.	Page 10
Submit affidavit of publication for official newspaper publication.	Public participation will be satisfied through the MAG 208 Amendment Process.	Page 10
Submit responsiveness summary for public hearing.	Public participation will be satisfied through the MAG 208 Amendment Process.	Page 10

ABBREVIATIONS USED

LPSCo	Litchfield Park Service Company
MAG	Maricopa Association of Governments
NVDG	Northwest Valley Development Group
CC&N	Certificate of Convenience and Necessity
APP	Aquifer Protection Permit
ACC	Arizona Corporation Commission
DMA	Designated Management Agency
MGD	Millions of gallons per day
EDU	Equivalent dwelling unit (used to describe the sewage flows in terms of dwelling units)
POTW	Publicly Owned Treatment Works

1.0 20-YEAR NEEDS ASSESSMENTS

1.1 General Background and Project History

Litchfield Park Service Company (LPSCo) is a privately-owned and operated wastewater operator providing wastewater collection and treatment service for all of the City of Litchfield Park and portions of Avondale, Glendale, Goodyear and unincorporated Maricopa County. The general area is shown in Exhibit 1. LPSCo's facilities, plans, and service area are described in the MAG 208 Water Quality Management Plan, October *2002*, a section of which is contained in Appendix B. The existing service area for the Palm Valley and Sarival Water Reclamation Facilities is shown in Exhibit 2. While not a Designated Management Agency itself, LPSCo operates in the areas of the agencies mentioned above with their cooperation and to their benefit. The City of Glendale, Town of Buckeye, and Maricopa County are requesting that the MAG 208 Plan be amended to include the service area expansion for the LPSCo Palm Valley and Sarival Water Reclamation Facilities. Other municipalities within three miles of the service area expansion (Goodyear and Surprise) have provided letters stating that they have no objection to the proposed amendment.

This 208 Plan Amendment provides for expansion of the LPSCo service area for the Palm Valley and Sarival Water Reclamation Facilities, which will receive wastewater from the proposed LPSCo Regional Sanitary Sewer. The expanded service area would include portions of the Glendale and Buckeye municipal planning areas and unincorporated areas of Maricopa County. This new gravity sewer line was proposed in the *White Tank Mountain Regional Sewer Study*, contained in Appendix C, and is needed to serve several planned communities that will not be served by other systems in the general area and are most effectively served by the LPSCo system.

1.2 Existing Service Area

Litchfield Park Service Company (LPSCo) currently provides wastewater collection and treatment service to all of the City of Litchfield Park and portions of Avondale, Glendale, Goodyear and unincorporated areas of Maricopa County. The LPSCo service area is predominately made up of master planned communities such as Palm Valley, Pebble Creek, and Litchfield Greens. That service area is shown in Exhibit 2.

1.3 Existing Facilities

The existing facilities include the Palm Valley Wastewater Reclamation Facility (PVWRF), located at 14222 W. McDowell Road, which was constructed and placed into service in February 2001. LPSCo is currently preparing an Aquifer Protection Permit amendment for the expansion of PVWRF from 4.1 to 8.2 MGD (see Appendix D). This facility was designed to serve all residential and commercial development from McDowell Road on the south to Camelback Road on the north and from Bullard Avenue on the west to Dysart Road on the east (Exhibit 2).

1.4 Previously Planned Facilities

1.4.1 Collection System

This proposed amendment does not detail any existing collection system components in the LPSCo system since they will not be affected by the proposed expansion.

1.4.2 Pumping Facilities

LPSCo has completed the construction of the Sarival Lift Station, which will provide interim pumping capacity to the PVWRF from the northwest service area until such time that flows increased to a level that would support startup and continuous operation of a second treatment facility, the Sarival Wastewater Reclamation Facility (SWRF). Both the Sarival Lift Station and SWRF proposed location are shown on Exhibit 3. The basis for this plan is described in the earlier August 2000 208 Plan Amendment, found in Appendix A. The initial design and first phase construction of the Sarival Lift Station is designed to provide the following pumping capacity:

- Average Daily Flow 2.0 MGD
- Peak Day Flow 4.2 MGD
- Peak Hour Flow 6.5 MGD

The lift station facility includes the following features, all existing at the current time:

- One 30,000 gallon sub-grade concrete wet well
- Three 1,500 GPM submersible raw sewage pumps and ancillary control equipment
- One 125 KVA – Standby power generator
- One Positive Displacement Passive Odor Scrubbing Unit
- One 24-inch by-pass sewer to the City of Goodyear
- One 36-inch RCP inlet piping
- One 16-inch DI discharge piping (to PVWRF)

The initial construction phase of the Sarival Lift Station will provide sewer service for up to 6,250 residential units by diverting up to 2.0 MGD average daily flow to the PVWRF through a newly constructed 16-inch ductile iron force main. Once the trigger flow rate of 1.2 MGD is reached at this facility, construction will begin on the first phase (4.1 MGD) of the SWRF.

1.4.3 Treatment Facilities

The SWRF will be located west of Sarival Road on the south side of McDowell Road and is planned to treat all residential and commercial sewer flows west of Pebble Creek Parkway between McDowell Road to the south and Bethany Home Road to the north; see Exhibit 3. This facility was previously approved through the 208 Plan Amendment dated August 2000, which is contained in Appendix A.

1.4.4 Facility Capacity

Both the Palm Valley WRF and Sarival WRF will be constructed in two general phases. The Palm Valley facility Phase I will have an average day capacity of 4.1 MGD with a second phase expansion to 8.2 MGD. The Sarival facility will have a Phase I average day capacity of 4.1 MGD and a full build out capacity of 8.2 MGD. The two new wastewater treatment facilities will be capable of treating the projected wastewater flows from the existing LPSCo service area with a 38% reserve capacity for projection limitations and modifications from the assumed modeling land uses, as reported in the August 2000 208 Amendment (Appendix A). The projected wastewater flows will be divided between the two wastewater treatment plants and development of certain areas will dictate actual

facility construction and expansion schedules. The following summarizes the proposed treatment plant capacities and anticipated construction time frames:

Treatment Plant	Annual Average Day Treatment Capacity		
	Phase I (year)	**Phase II (year)**	**Total Capacity**
Palm Valley WRF	4.1 MGD (2001)	4.1 MGD (2012)	8.2 MGD
Sarival WRF	4.1 MGD (2006)	4.1 MGD (2016)	8.2 MGD
		Total	**16.4 MGD**

The capacity available for the proposed expansion equals 6.23 MGD (0.38 x 16.4).
The current capacity of the Palm Valley WRF is 4.1 MGD. The Sarival WRF is yet to be constructed.

1.4.5 Water Reclamation Facility Description

The Palm Valley and Sarival WRF's treatment process is be based on biological oxidation by the extended aeration activated sludge process. Both treatment plants will include screening, grit removal, anoxic/aerobic biological nutrient removal, Ultra-Violet (UV) disinfection, and disk filtration. The treatment process will utilize anoxic mixing, aerobic mixing, and static reaction capabilities to provide biological oxidation, nitrification, denitrification, and clarification within one reactor tank. To provide process redundancy and obtain a Phase I average-day capacity of 4.1 MGD, a minimum of two reactor tanks will be constructed. The Palm Valley WRF has been constructed utilizing the above treatment process and is fully operational at 4.1 MGD capacity.

Wastewater will be treated to exceed the current ADEQ Title 18 requirements for unrestricted irrigation re-use. Effluent disposal is accomplished through golf course and agricultural irrigation. There are currently four 18-hole golf courses served by LPSCo with four future courses planned and numerous public parks, which will be converted to reclaimed water irrigation. LPSCo plans to provide the reclaimed water at less cost than current groundwater or surface water prices. Effluent from the treatment facilities will be stored in golf course lakes and water feature amenities then distributed as needed for irrigation. It is estimated that the irrigation demand in the North Planning Area will not require as much reclaimed

water as will be produced. Therefore, a secondary discharge system will be developed for both plants to allow for groundwater recharge of the underlying aquifer. An AZPDES permit will be required for the RID canal discharge proposed for the SWRF. Discussions are currently underway with the RID to identify the AZPDES Permit point of discharge for the SWRF. Raw wastewater is expected to be nearly 100% residential and light commercial. Industrial service connections will be required to comply with all pretreatment requirements.

Both facilities will generate waste sludge, which will be directed to an aerobic digestion process. The sludge digestion process will provide pathogen and vector attraction reduction equivalent to the EPA Title 40 CFR Art 503 regulations, which will result in a facility having the capability to produce Class A biosolids. Biosolids will be stored and sold or hauled to landfill for disposal. However, there will be an opportunity to use SWRF as a bio solids processing plant for both facilities once it is completed. This will reduce environmental impacts and aesthetic concerns in the vicinity of the PVWRF.

Operation and maintenance of the sewage system will be in accordance with LPSCo procedures. LPSCo will provide the services in accordance with the current regulations of the U.S. Environmental Protection Agency (EPA), Arizona Corporation Commission, the Arizona Department of Environmental Quality and Department of Water Resources, Maricopa County Environmental Services Department (MCESD), City of Goodyear, and any other regulatory agencies having jurisdiction.

Further details about the treatment processes, effluents, and biosolids handling are found in the August 2000 208 Amendment in Appendix A.

1.4.6 Pretreatment Requirements

The Code of Federal Regulations Part 403 Section 403.8 states "any POTW with a total design flow of 5 million gallons per day and receiving from industrial users pollutants which pass through or interfere with the operation of the POTW or are otherwise subject to pretreatment standards, will be required to establish a

pretreatment program". No industrial users are anticipated to discharge into the two wastewater treatment plants. Thus neither facility is required to comply with pretreatment requirements. If industrial users are added to the service area of either facility, a pretreatment program will be developed with the industrial user being subject to pretreatment standards as regulated by the EPA.

1.5 Population and Wastewater Flow Estimates

In the August 2000 208 Amendment four regional areas were used to define the total LPSCo service area. These four areas include the City of Goodyear's Regional Analysis Zone (RAZ) 265, RAZ 266 (Litchfield Park), the Stardust Development service area, and the Wigwam Creek service area. These are illustrated in Exhibit 2. The layout of Regional Analysis Zones is shown in the figure in Appendix E. Appendix E also contains population projections drawn from the current MAG 208 Plan.

Estimates of dwelling units and resulting wastewater flows for the proposed service area expansion are shown in the first table below; the second table shows the basis used to determine the number of Equivalent Dwelling Units (EDU) for the different land types.

Property	Area, ac	Residential Units	Commercial, ac	Schools, number	EDU
Badley Center	20	0	18	0	28
Savannah	159	319	0	0	319
Russell Ranch Ph 6	80	110	10	0	126
Zanjero Trails	2208	8231	72	3	8519
Jackrabbit Estates	140	364	0	0	364
				Total	9356

Land Use	Basis		EDU	
Residential	100	gal/person/day	1	
	3.2	persons/household		
	4	household/ac		
Commercial	2000	gal/ac/day	1.56	per ac
Schools	75	gal/student/day	58.6	per school
	1000	students/school	3.9	per acre

Using the Maricopa County unit load criteria, the 9356 EDUs at ultimate build out of the proposed expansion area will generate 3 MGD average daily flow.

This analysis shows that the existing and planned facilities have sufficient capacity, 6.23 MGD available versus 3.0 MGD required, to serve this expanded area .

1.6 Newly-proposed Facilities

The LPSCo Regional Sanitary Sewer has been designed to serve the needs of the proposed expanded service area plus additional properties. The basis for design of this sewer is presented in the *White Tank Mountain Regional Sewer Solution* report found in Appendix C. Compared with the contributory area described in the *White Tank Mountain Regional Sewer Solution* report, the initial area that is contributing to construction is smaller because some of the properties are not participating in the current project. The reduction in initial flows will not reduce the effectiveness of the sewer to operate and function properly. The properties that will be served by the Regional Sanitary Sewer are shown in Exhibit 4.

The Sarival Lift Station was constructed and placed into service in June of 2005 and is currently functional. The planned Regional Sanitary Sewer line will connect to the Sarival Lift Station just north of the facility. The lift station and the future Sarival WRF are located southwest of the intersection of Sarival Avenue and McDowell Road in the City of Goodyear. The original design concept of the Sarival Lift Station is to provide interim pumping capacity to the Palm Valley Water Reclamation Facility (PVWRF) from the northwest service area until such time that flows increase to a level that support startup and continuous operation of the ultimate 8.2 MGD SWRF. At full build-out, the facility is planned to treat all residential and commercial sewer flows west of Pebble Creek Parkway between McDowell Road to the south and Bethany Home Road to the north (Exhibit 2).

The planned Regional Sanitary Sewer line is under construction and anticipated to be completed by in April 2006.

1.7 Permitting Requirements

The expansion of the service area under this amendment will not require any permits.

The Regional Sanitary Sewer line to serve the area has been issued a Permit to Construct from Maricopa County Environmental Services Department.

Construction activities for the sewer line will require a Stormwater Pollution Prevention Plan, which is in place and maintained by the Contractor doing the construction.

2.0 CONSTRUCTION

2.1 Construction, Operation, and Maintenance Responsibility

LPSCo will develop and implement the plan for the construction/expansion and operation of the Palm Valley WRF, the Sarival WRF, and the Sarival Lift Station and will be solely responsible for funding the projects.

The NVDG will undertake construction of the Regional Sanitary Sewer through their own funding by contributions. Upon completion and acceptance, the Regional Sanitary Sewer will become the property of LPSCo who will own, operate and maintain the Sewer.

2.2 Sources of Construction Pollution

The construction of the wastewater treatment plants will not be a significant source of pollution. Sources of pollution from the construction sites are expected to be from normal construction materials (i.e. concrete, lumber, paint, etc.), as well as fugitive dust and construction equipment exhaust emissions. Erosion control measures during construction and grading will be implemented to prevent potential storm water runoff to water bodies. The developer and contractor will be required to maintain a clean, safe working environment and to abide by all rules and regulations covering storage, use, and disposal of hazardous materials.

The construction of the Regional Sanitary Sewer will also not be a significant source of pollution. Sources of pollution from the construction sites are expected to be from fugitive dust and construction equipment exhaust emissions. Erosion control measures during construction and grading will be implemented to prevent potential storm water runoff to water bodies. The developer and contractor will be required to maintain a clean, safe working environment and to abide by all rules and regulations covering storage, use, and disposal of hazardous materials.

3.0 FINANCING AND OTHER ACTIONS TO IMPLEMENT PLAN

3.1 Financing Capability to Construction the Facilities

LPSCo has made financial plans for the construction and operation of the treatment plants. The new facilities will be constructed using private, tax exempt, and/or developer/development funds.

LPSCo will develop and implement the plan for the construction and operation of the Palm Valley WRF, the Sarival WRF and related services areas. LPSCo will be solely responsible for funding the project. Both facilities will be funded with moneys from LPSCo connection fees for new home construction and development. No financial constraints are expected for either of the treatment works.

LPSCo's financial capability to undertake these projects is documented by the financial statements included in Appendix F.

The financial capability to construct the Regional Sanitary Sewer is documented in the letter from LPSCo, which is also included in Appendix F.

4.0 IMPACTS AND IMPLEMENTATION PLAN

4.1 Impacts of the Proposed Wastewater Treatment Plants

A detailed discussion of the impacts of the treatment facilities is contained in the August 2000 208 Amendment; refer to Appendix A for those details. Construction of the Regional Sanitary Sewer line and expansion of the service area will not change anything related to the impacts of those treatment facilities.

The existing Palm Valley WRF will initially alleviate excess wastewater flow to the City of Goodyear's treatment facility by re-routing an average of 1.1 MGD currently conveyed to the City's 157th Avenue WWTP. The need to discontinue this diversion plus the new flows from the NVDG projects will immediately trigger design of the SWRF.

Potential environmental issues include odor, noise, vectors and hazardous materials. Once completed, the SWRF may be utilized to process bio solids from the PVWRF,

potentially eliminating environmental and aesthetic issues associated with biosolids processing.

5.0 PUBLIC PARTICIPATION

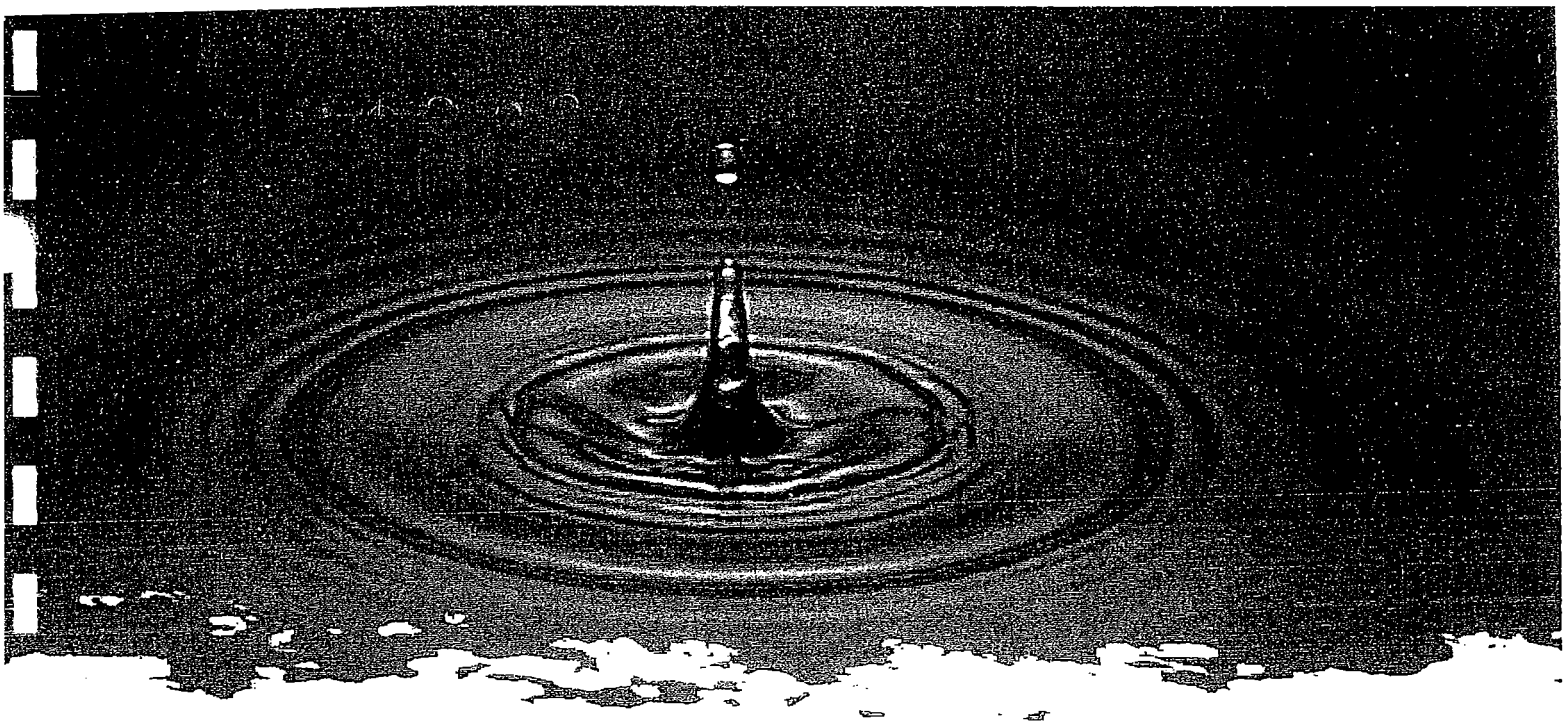
As part of the MAG Water Quality Management Plan Amendment Process, MAG, with the cooperation of the City of Glendale, Town of Buckeye and Maricopa County, is responsible for ensuring that the following actions are implemented after submittal of the draft 208 Amendment:

- Notify all parties of a public hearing on the 208 Amendment by sending notices to interested parties at least 30 days prior to the public hearing. The notice will include the date, time, subject and location of the public hearing for the 208 Amendment.
- Notify public at least 45 days in advance of the public hearing by advertising in a publication. The notice will include the date, time, subject and location of the public hearing for the 208 Amendment.
- Notify public that draft amendments are available for public viewing 30 days before the hearing. This notice will include the location, days, and time of availability.
- Submittal of an affidavit of publication of the public notice.

APPENDIX A – August 2000 208 Plan Amendment

This Appendix contains the document portion of the August 2000 208 Amendment that set forth the treatment plans and service area for LPSCo. That Amendment was approved and is contained in the 208 Water Quality Management Plan, October 2002.

This document describes the treatment and pumping facilities planned by LPSCo and forms the background basis for information in support of this current amendment.



CLEAN WATER ACT
- 208 AMENDMENT -

APPLICATION FOR
MARICOPA ASSOCIATION OF GOVERNMENTS

PREPARED FOR:

LITCHFIELD PARK SERVICE COMPANY
WATER RECLAMATION FACILITY
&
CITY OF GOODYEAR

AUGUST 2000

PREPARED BY:
PACE
PACIFIC ADVANCED
CIVIL ENGINEERING

Table of Contents

Appendix

EXECUTIVE SUMMARY

GOODYEAR

August 30, 2000

Ms. Lindy Bauer, Environmental Program Director
Maricopa Association of Governments
302 North 1st Avenue, Suite 300
Phoenix, AZ 85003

RE: MAG 208 AMENDMENT – GOODYEAR, ARIZONA

Dear Ms. Bauer:

Enclosed is a proposed Amendment to the Maricopa Association of Governments (MAG) 208 Water Quality Management Plan point source plan element for the City of Goodyear and Litchfield Park Service Company (LPSCo). We are requesting the County's review comments, and its formal support in this MAG 208 Amendment process.

The proposed amendment will update the plan for wastewater treatment facilities in the central and northern planning area within the City of Goodyear, and will provide additional needed capacity for SunCor, the master developer for most of the north area.

The WRF's are located within three miles of Litchfield Park, Avondale, Glendale, El Mirage, Buckeye, and unincorporated Maricopa County. Support letters are attached from Avondale, Litchfield Park and Glendale.

Council approved the Amendment to MAG 208 Water Quality Management Plan for the addition of Phases I-IV (16.4 MGD total) of the Palm Valley and Sarival Avenue Water Reclamation Facilities (WRF) both located north of McDowell Road, subject to the AGREEMENT FOR MAG 208 AMENDMENT. The agreement, which is attached outlines the City's consent of the revisions to be made to the 208 plan proposed by LPSCo. Part of the agreement however addresses conditions that LPSCo must meet in order to proceed with expansions to the Palm Valley facility (beyond the original 4.1 MGD construction) or construction of the Sarival Avenue facility.

A. The facility must meet State and Federal odor requirements.
B. The operation must meet State and Federal noise control requirements.
C. The facility must produce a Class A Sludge without violations of any State or Federal requirements.
D. Compliance with the Engineering Report prepared by Environmental Utilities International (also attached).

At such time as each phase of the facilities reaches an operating capacity of 3 million gallons per day (3 MGD), of each operating phase, without violation and in compliance with conditions A, B, C and 4 above, LPSCo may commence construction of the next phase. The City's designated consultant shall determine, at each phase, whether LPSCO has complied with the requirements of this Agreement. The Consultant's report of findings shall be submitted to City Council for approval prior to commencement of each phase.

The following are current WWTP's and WRF and the proposed amendment for additional WRF's in this area:

Existing 208 Plan	Proposed Amendment
Goodyear Wastewater Treatment Plant	n/a
Corgett Basin WRF	n/a
Lum Basin WWTP	n/a
Waterman Basin WWTP	n/a
n/a	Palm Valley WRF
n/a	Sarival Avenue WRF

Since, the newly proposed WRF's are located within three miles of the unincorporated Maricopa County wastewater planning area. The City of Goodyear is requesting a written expression of support from the County, confirming that this Amendment will not conflict with any wastewater plans by the County.

We would appreciate a timely review and response so that we can initiate the MAG approval process. Please address your letter of support to my attention. If you have technical questions or comments, you may direct them to Steve Owen of Pacific Environmental Resources Corporation (PERC) at (602) 631-3905 ext. 405.

The City of Goodyear appreciates the County's assistance with this matter.

Sincerely,

CITY OF GOODYEAR

Stephen S. Cleveland

Stephen S. Cleveland
City Manager

Enclosure

cc: Cato Esquivel, Jr., Public Works Director
David W. Ellis, LPSCo
Jay Ellingson, SunCor
Reading File
City Clerk

ENVIRONMENTAL SERVICES
DEPARTMENT

Albert F. Brown, RS, MPA, Director

1001 N. Central Avenue, Suite 150
Phoenix, Arizona 85004

WATER AND WASTE MANAGEMENT
DIVISION

John A. Power, PE, Division Manager

(602) 506-6666
FAX (602) 506-6925
TT (602) 506-6704

August 30, 2000

Maricopa Association of Governments
302 North 1st Avenue, Suite 300
Phoenix, Arizona 85003

Attention: Ms. Lindy Bauer, Environmental Program Coordinator
Re: City of Goodyear Proposed 208 Amendment for Litchfield Park Service Co. (LIPSCO), MCESD #TBD

Dear Ms. Bauer:

Pacific Advanced Civil Engineering (PACE) has submitted a proposed 208 Amendment to the Maricopa County Environmental Services Department (MCESD) for two (2) wastewater treatment facilities in the City of Goodyear for the LIPSCO service area. The service areas includes the City of Litchfield Park and adjacent areas between Perryville Road and 115th Avenue, and between McDowell Road and Glendale Avenue.

In accordance with the MAG 208 Water Quality Management Plan, the proposed 208 Amendment for the facility was submitted to this Department for comment, since the facility is located within three miles of the unincorporated area of Maricopa County.

Based on a review of the proposed 208 Amendment, dated June 2000, the Maricopa County Environmental Services Department, Water and Waste Management Division does not object to the proposed plants for the City of Goodyear and LIPSCO. However, several technical issues remain, which need to be resolved during the design phase of the project. Approval to Construct and Approval of Construction must be obtained from this Department prior to start of construction and startup, respectively.

Maricopa County approved the Dreaming Summit Development, which is part of the proposed LIPSCO service area, with a condition that the existing Casitas Bonitas subdivision be connected to its sewage collection system. Maricopa County expects this provision to be honored. Accordingly, our support is contingent that the failing Casitas Bonitas wastewater treatment plant is abandoned as part of this project, and its customers are connected to the proposed LIPSCO system.

If you have any questions or comments, please feel free to contact Mr. Dale Bodiya, PE, or myself, at 506-6666.

Sincerely,

Dale G. Bodiya

for John A. Power, PE
Manager, Water and Waste Management Division

cc:
Mr. Albert F. Brown, RS, MPA, Director, MC Environmental Services Department
Mr. Dale Bodiya, PE, Manager, Water / Wastewater Treatment Section, MCESD
ADEQ, Manager, Water Permits and Plan Review Section
Steve Owen, PACE
City of Goodyear
Mr. Dave Ellis, General Manager, LIPSCO
File

Town of Buckeye

July 20, 2000

Ms. Lindy Bauer
Environmental Program Director
Maricopa Association of Governments
302 N. 1st Avenue, Suite 300
Phoenix, AZ 85003

Re: MAG 208 Amendment – Goodyear, Arizona

Dear Ms. Bauer:

The Town of Buckeye is aware that the City of Goodyear is submitting an application requesting a Clean Water Act Section 208 Amendment to the Regional Water Quality Management Plan to accommodate two proposed water reclamation facility sites located in the North Planning Service Area of Goodyear. The first site, located near McDowell and Litchfield Roads, is sized for a total capacity of 8.2 MGD and the second site, near Sarival and McDowell Roads, is also sized for a capacity of 8.2 MGD.

The proposed 208 Amendment will update the plan for wastewater treatment facilities in the North Planning Area and will provide additional needed capacity for both Litchfield Park and the City of Goodyear.

The Town of Buckeye expresses its support for this 208 Amendment application. If you should have any questions, please do not hesitate to call me at 623/386-4691.

Sincerely,

Joseph Blanton /lg

Joseph Blanton, Town Manager

cc: David W. Ellis, LPSCO
Steve Cleveland, City of Goodyear

100 North Apache• Buckeye, Arizona 85326 • (623) 386-4691 •FAX (623) 386-7832

CITY OF AVONDALE

INCORPORATED 1946

525 NORTH CENTRAL AVENUE · AVONDALE, ARIZONA 85323
PHONE: (623) 932-2400 · FAX: (623) 932-2205
INTERNET ADDRESS: www.avondale.org

July 24, 2000

Ms. Lindy Bauer
Environmental Program Director
Maricopa Association of Governments
302 N. 1st Avenue, Suite 300
Phoenix, AZ 85003

Re: MAG 208 Amendment – Goodyear, Arizona

Dear Ms. Bauer:

The City of Avondale is aware that the City of Goodyear is submitting an application requesting a Clean Water Act Section 208 Amendment to the Regional Water Quality Management Plan to accommodate two proposed wastewater treatment facility sites located in the North Planning Service Area of Goodyear. The first site is located near McDowell and Litchfield Road and is sized for a total capacity of 8.2 MGD. The second site near Sarival Road and McDowell also is sized for a capacity of 8.2 MGD. It is our understanding that both facilities are to be constructed by the Litchfield Park Service Company (LPSCO).

The proposed 208 Amendment will update the plan for wastewater treatment facilities in the North Planning Area and will provide additional needed capacity for both Litchfield Park and the City of Goodyear.

The City of Avondale has no objection to these facilities and will support the 208 Amendment application as submitted by the City of Goodyear. Your assistance and timely review are appreciated. Please do not hesitate to contact me should you have any questions.

Sincerely,

Paul Adams
City Manager

cc: David W. Ellis, LPSCO
Steve Cleveland, Goodyear City Manager

TOTAL P.02

City of Litchfield Park

August 21, 2000

Ms. Lindy Bauer
Environmental Program Director
Maricopa Association of Governments
302 N. 1st Avenue, Suite 300
Phoenix, AZ 85003

Re: MAG 208 Amendment – Goodyear, Arizona

Dear Ms. Bauer:

The City of Litchfield Park is aware that the City of Goodyear is submitting an application requesting a Clean Water Act Section 208 Amendment to the Regional Water Quality Management Plan to accommodate two proposed water reclamation facility sites located in the North Planning Service Area of Goodyear. The first site is located near McDowell and Litchfield Road and is sized for a total capacity of 8.2 MGD and the second site, near Sarival Road and McDowell, also is sized for a capacity of 8.2 MGD.

The proposed 208 Amendment will update the plan for wastewater treatment facilities in the North Planning Area and will provide additional needed capacity for both the Litchfield Park area and the City of Goodyear.

In concept, and after consultation with the City of Goodyear, the City of Litchfield Park does not object to the amendment to the 208 plan To the extent that the City of Goodyear does not object to the plant site or to the proposed technology, we endorse the amendment. Our endorsement should not be viewed as an approval of Litchfield Park Service Company's (LPSCo) development or financial planning. Therefore, this endorsement should not be used to justify future rate increases to the residents of Litchfield Park.

The City also objects to the expansion of the LPSCo service area to include the Dreaming Summit project, Wigwam Creek and Veranda, and we do not wish this endorsement to be viewed as support for this project.

Additionally, the City would like to keep open for future discussion the possibility of ownership in the wastewater treatment facility, as well as a requirement to return reclaimed water to Litchfield Park.

214 West Wigwam Boulevard • Litchfield Park, Arizona 85340
Phone (623) 935-5033 • Fax (623) 935-5427 • www.litchfield-park.org

With the above conditions, and upon fulfillment of all stipulations requested by the City of Goodyear, we do not object to this 208 Amendment application. We look forward to working with both LPSCO and the City of Goodyear and would appreciate a timely review and response to facilitate the MAG approval process.

Sincerely,

J. Woodfin Thomas
Mayor

cc: David W. Ellis, Litchfield Park Service Company
Steve Cleveland, Goodyear City Manager

GLENDALE

JUL 17 2000

July 7, 2000

David W. Ellis
General Manager
LPSCO
111 W. Wigwam Blvd, Suite B
Litchfield Park, Arizona 85340

Dear Sir:

This letter is in response to the letter you delivered to my office on July 7, 2000 regarding the new LPSCO Water Reclamation Facility in Goodyear, Arizona. After review and consideration, the City of Glendale has no objection to the plan you have proposed. You may be over three miles from our jurisdiction in which case you would not need our comments anyway. Even so, the City of Glendale would like to take this opportunity to wish you luck with your project and offer any assistance we can give in your planning or review process.

Sincerely,

Kenneth A. Reedy
Deputy City Manager, Public Works

GOODYEAR INVESTORS, L.L.C.

Globe Corporation, Managing Member

RAYMOND H. CARTER
Vice President

6730 N. Scottsdale Road, Suite 250
Scottsdale, Arizona 85253

Telephone (480) 991-0500
Facsimile (480) 991-1912

July 17, 2000

Dave Ellis
Litchfield Park Service Company
111 W. Indian School Road
Litchfield Park, AZ 85340

RE: Sewer Service Section 32 Goodyear, AZ

Dear Dave:

We support the installation of the new sewage treatment facility north of the freeway to service our property.

Sincerely,

Raymond H. Carter
Vice President

EXECUTIVE SUMMARY

The Maricopa Association of Governments (MAG) is the Designated Management Agency with the authority under Section 208(2)(b) of the Clean Water Act (CWA) to prepare the Regional Water Quality Management Plan for the Maricopa County Planning Area. The purpose of this application is to request a Clean Water Act Section 208 amendment to the current Regional Water Quality Management Plan. The requested amendments include:

Amendment Item #1:
The construction of a new LPSCo owned and operated 8.2 MGD Palm Valley water reclamation facility (WRF) on McDowell Road between Bullard Avenue and Litchfield Road in the City of Goodyear. The purpose of this new facility is for the reclamation of wastewater flows from the current Litchfield Park Service Company (LPSCo) service area and portions of the Regional Analysis Zone (RAZ) 265 and 266. The expanded service area for the Palm Valley WRF will have a general boundary from the I-10 freeway north past Camelback Road and west from Dysart Road to Bullard Avenue. Permits that will be required for the Palm Valley WRF will include an ADEQ Reuse Permit for irrigation of existing golf courses and parks as well as an APP permit for both reuse and recharge. In the event that not all effluent water can be reused and recharged a NPDES will be in place to allow a secondary point of discharge.

Amendment Item #2:
The construction of a new LPSCo owned and operated 8.2 MGD Sarival WRF at Sarival Avenue and McDowell Road in the City of Goodyear. The purpose of this new facility is for the reclamation of wastewater flows from the remaining portions of RAZ 265. The service area for the Sarival WRF will have a general boundary from the I-10 freeway north to Camelback Road and west from Bullard Avenue to Cotton Lane and sections between Cotton Lane and Perryville Road. Permits that will be required for the Sarival WRF will include an ADEQ Reuse Permit for irrigation of existing golf courses and parks as well as an APP permit for both reuse and recharge. In the event that not all effluent water can be reused and recharged a NPDES will be in place to allow a secondary point of discharge.

Several alternatives have been studied in addition to the construction of independent wastewater treatment plants for accommodation of increasing flows. The alternatives include:

Alternative 1:
LPSCo continued contribution of wastewater flow to the Goodyear 157th Avenue WWTP and purchase of additional capacity to be provided at the 157th Avenue WWTP.

Alternative 2:
Construction of a LPSCo wastewater treatment plant and sale of all interest in the City of Goodyear 157th Avenue WWTP.

Alternative 3:
LPSCo continued contribution of wastewater flow to the Goodyear 157th Avenue WWTP and purchase of additional capacity and process upgrades to be provided at the 157th Avenue WWTP.

Alternative 4:
Deferred construction of a LPSCo wastewater treatment plant until the actual LPSCo wastewater contribution to the Goodyear 157th Avenue WWTP increases to 2.0 MGD.

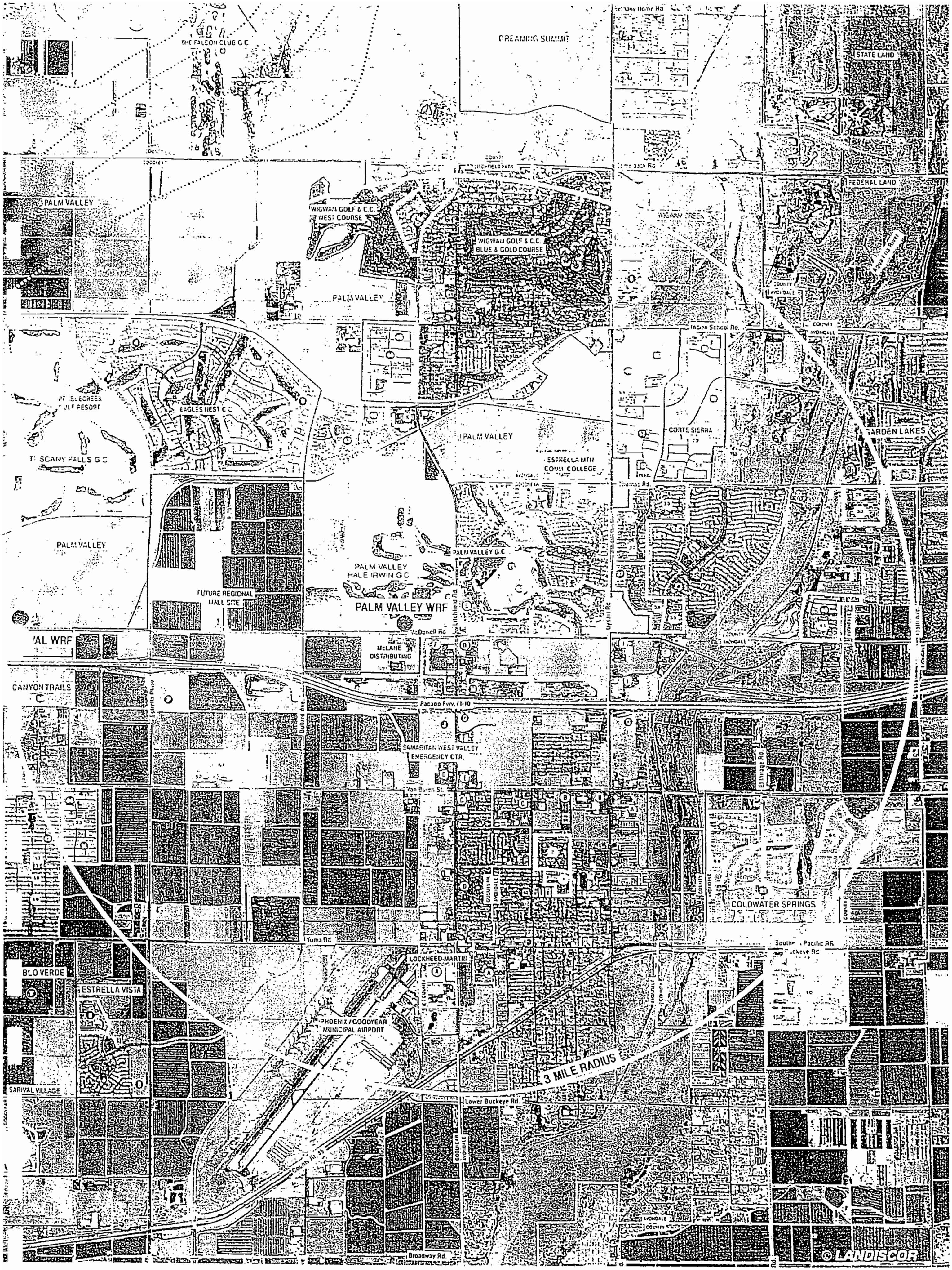
Alternative 5:
Deferred construction of a LPSCo wastewater treatment plant until the actual LPSCo wastewater contribution to the Goodyear 157th Avenue WWTP increases to 1.4 MGD.

Construction of a LPSCo water reclamation plant was considered to be highly cost-effective in comparison to the continued contribution of wastewater to the Goodyear 157th Avenue WWTP. In their 1998 report, Black & Veatch, LLP determined that Alternative 2 of those listed above was the most economically beneficial.

This CWA 208 Amendment application provides information on the proposed independent LPSCo WRFs. The following sections describe how the Section 208 requirements are addressed including alternatives, permitting, pretreatment, sludge management, construction, financing, impacts, and public participation.

ABBREVIATIONS

ADEQ	Arizona Department of Environmental Quality
ADWR	Arizona Department of Water Resources
APP	Aquifer Protection Permit
CFR	Code of Federal Regulations
EPA	Environmental Protection Agency
LPSCo	Litchfield Park Service Company
MAG	Maricopa Association of Governments
MGD	Million gallons per day
MSDS	Material Safety Data Sheets
O&M	Operations and maintenance
P.A.C.E.	Pacific Advanced Civil Engineering, Inc.
RAZ	Regional Analysis Zone
WRF	Water Reclamation Facility
WWTP	Wastewater Treatment Plant



DREAMING SUMMIT
STATE LAND
FEDERAL LAND
PALM VALLEY
WIGWAM GOLF & C.C. WEST COURSE
WIGWAM GOLF & C.C. BLUE & GOLD COURSE
Indian School Rd.
EAGLES NEST G.C.
CORTE SIERRA
GARDEN LAKES
ESTRELLA MTN COMM. COLLEGE
Thomas Rd.
PALM VALLEY G.C.
PALM VALLEY HALE IRWIN G.C.
FUTURE REGIONAL MALL SITE
PALM VALLEY WRF
McDowell Rd.
McLANE DISTRIBUTING
CANYON TRAILS
Papago Fwy. / I-10
SAMARITAN WEST VALLEY EMERGENCY CTR.
Van Buren St.
COLDWATER SPRINGS
Yuma Rd.
LOCKHEED-MARTIN
PHOENIX / GOODYEAR MUNICIPAL AIRPORT
ESTRELLA VISTA
3 MILE RADIUS
Lower Buckeye Rd.
Broadway Rd.
© LANDISCOR

CLEAN WATER ACT
SECTION 208 CHECKLIST SUMMARY

Requirement	Summary of How Requirements are Addressed	Page	Heading
AUTHORITY			
Proposed Designated Management Agency (DMA) shall self-certify that it has the authorities required by Section 208(2)(b) of the Clean Water Act to implement the plan for its proposed planning and service areas. Self-certification shall be in the form of a legal opinion by the DMA or entity attorney.			
20-YEAR NEEDS			
Clearly describe the existing wastewater treatment (WWT) facilities:			
• Describe existing WWT facilities.	There are no existing WWTF facilities in the service area. LPSCo's Current collection system conveys sewage to the 157th Avenue treatment plant located approximately 5.7 miles to the south of LPSCO service area.	10	
• Show WWT certified and service areas for private utilities and sanitary district boundaries, if appropriate.	The two WRF's will serve the Goodyear North Planning area. The service area is located in the northern portion of the City of Goodyear, north of the I-10 freeway to Camelback Rd, west from Dysart Rd. to Perryville Rd.		Appendix A
Clearly describe alternatives, the recommended WWT plan, and factors that affect discharge:			
• Provide POPTAC population estimates (or COG-approved estimates only where POPTAC not available) over 20-year period.	Review of MAG population estimates based on Interim Socioeconomic Report – June, 1997 and calculations performed by Black & Veatch. LLP 1998.	13	
• Provide wastewater flow estimates over the 20-year planning period.	Flow projection based on MAG and Black & Veatch population estimates.	14	
• Illustrate the WWT planning and service areas.	The planning and service areas will include the Goodyear North Planning area. (RAZ265&266)		Appendix A
• Describe the type and capacity of the recommended WRF.	Advanced tertiary treatment including screening, grit removal, nitrification/denitrification, clarification, filtration, ozonation/UV disinfection. The facility will also include bio-solids processing to meet EPA 503 Class-A standards using aerobic digestion. The average day capacity of each facility will be constructed in two phases. The Phase I capacity of each plant will be 4.1 MGD with a phase II capacity of 8.2 MGD.	15	

• Identify water quality problems, consider alternative control measures, and recommend solution for implementation.	No water quality problems are expected to occur. The final effluent will meet current ADEQ open access and proposed ADEQ Class A+ reuse standards. An NPDES permit will be obtained for emergency treated water discharge to the Gila river basin.	10	
• If private WWT utilities with certificated areas are within the proposed regional service area: define who (municipal or private utility) serves what area and when. Identify whose sewer lines can be approved in what areas, when?	Litchfield Park Service Company currently owns and operates the sewage collection system in the proposed service area.	17	
• Describe method of effluent disposal and reuse sites (if appropriate).	Effluent will be stored in lined lakes and used to irrigate golf courses and parks with recharge of excess effluent. Permits that will be required for the WRF will include an ADEQ Reuse Permit for irrigation of existing golf courses and parks as well as an APP permit for both reuse and recharge. In the event that not all effluent water can be reused and recharged a NPDES will be in place to allow a secondary point of discharge.	17	
• Describe other wastewater treatment options that were considered.	Five alternatives were considered: **Alt. #1** – Stay with City of Goodyear WWTP & expand. **Alt. #2** – Construct new WRF(s) in the North Planning Area and sell 1.4 MGD capacity back to City of Goodyear. **Alt. #3** - Stay with City of Goodyear WWTP & use process upgrades and expansion for all LPSCo flows. **Alt. #4** – Purchase additional capacity at the City of Goodyear to 2.0 MGD, then construct a new WRF(s) in the North Planning Area for additional LPSCo flows. **Alt. #5** – Purchase additional capacity at the City of Goodyear to 2.0 MGD, then construct a new WRF(s) in the North Planning Area for additional LPSCo flows.	10	
• If Sanitary Districts are within a proposed planning or service area, describe who services the Sanitary Districts and when.	Litchfield Park Service Company currently owns and operates the sewage collection system in the proposed service area.	17	
• Describe ownership of land proposed for plant sites and reuse areas.	The land proposed for use at both plant sites is owned by SunCor Development Co. & will be sold to LPSCo for the intended WRF use. Storage & reuse will occur on golf courses, parks and lake amenities.	13	

• Address time frames in the development of the treatment works.	The Palm Valley WRF consists of two phases of 4.1 MGD each. Phase I will be completed by 2001 with full build-out by 2010. The Sarival. WRF consists of two phases of 4.1 MGD each. Phase I will be completed by 2006 with full build-out by 2020.	9	
• Address financial constraints in the development of the treatment works.	Both facilities will be funded with moneys from LPSCo, connection fees for new home construction & development. No financial constraints are expected for either of the treatment works.	19	
• Describe how discharges will comply with EPA municipal and industrial stormwater discharge regulations (Section 405, CWA).	Neither treated or untreated wastewater will be discharged to Waters of the U.S. & site-specific storm water will be retained on site for up to 100-year storm events.	17	
• Describe how open areas and recreational opportunities will result from improved water quality and how these will be used.	The use of high quality effluent for irrigation will reduce the demand for groundwater. LPSCo plans to sell the reclaimed water to users at a lower cost than raw groundwater to facilitate reuse.	16	
• Describe potential use of lands associated with treatment works and increased access to water-based recreation, if applicable.	Not applicable.	NA	
REGULATIONS			
• Describe types of permits needed, including NPDES, APP and reuse	Both new WRFs will require Aquifer Protection Permits, 401 Water Quality Certification, Reclaimed Water Reuse Permits, NPDES & EPA 503 Sludge Reuse Permits.	18	
• Describe restrictions on NPDES permits, if needed, for discharge and sludge disposal.	The treated municipal wastewater point discharge from the WRFs will be used for emergency only and will not be for daily operations.	18	
• Provide documentation of communication with ADEQ Permitting Section 30 to 60 days prior to public hearing regarding the need for specific permits.	LPSCo has conducted pre-application meetings with Maricopa County Environmental Services & ADEQ.	NA	
• Describe pretreatment requirements and method of adherence to requirements (Section 208 (b)(2)(d), CWA).	Raw wastewater is expected to be nearly 100% residential & light commercial. Industrial service connections will be required to comply with all pretreatment requirements.	18	

• Identify, if appropriate, specific pollutants that will be produced from excavations and procedures that will protect ground and surface water quality (Section 208(b)(2)(K) and Section 304, CWA).	Not applicable.	NA	
• Describe alternatives and recommendations in the disposition of sludge generated (Sections 405, CWA and 40 CFR 503).	Sludge will be treated on-site using processes to significantly reduce pathogens (PSRP) to meet the EPA Class A reuse requirements for sludge of exceptional quality (EQ).	18	
• Define any non-point issues related to the proposed facility and outline procedures to control them.	No non-point discharges are anticipated.	17	
• Describe process to handle all mining runoff, orphan sites, and underground pollutants, if applicable.	Not applicable.	NA	
• If mining related, define where collection of pollutants has occurred, and what procedures are going to be initiated to contain contaminated areas.	Not applicable.	NA	
• If mining related, define what specialized procedures will be initiated for orphan sites, if applicable.	Not applicable.	NA	
CONSTRUCTION			
• Define construction priorities and time schedules for initiation and completion.	The Palm Valley WRF consists of two phases of 4.1 MGD each. Phase I will be completed by 2001 with full build-out by 2010. The Sarival WRF consists of two phases of 4.1 MGD each. Phase I will be completed by 2006 with full build-out by 2020.	9	
• Identify agencies that will construct, operate, and maintain the facilities and otherwise carry out the plan.	Litchfield Park Service Company will construct, operate & maintain both WRFs.	19	
• Identify construction activity-related sources of pollution and set forth procedures and methods to control, to the extent feasible, such sources.	Sources of pollution from the construction sites are expected to be from normal construction materials. (i.e. concrete, lumber, paint, etc.) The contractor will be required to maintain a clean, safe working environment & to abide by all rules & regulations covering storage, use & disposal of hazardous materials.	19	

FINANCING AND OTHER MEASURES NECESSARY TO CARRY OUT THE PLAN			
• If plan proposes to take over a certified private utility, describe how and when financing will be managed.	Not applicable.	NA	
• Describe any significant measure necessary to carry out the plan (e.g., institutional, financial, economic, etc.)	Not applicable.	NA	
• Described proposed method(s) of community financing.	The new treatment plants will be constructed using private, tax exempt funding where available, and developer funds.	19	
• Provide financial information to assure DMA has financial capability to operate and maintain wastewater system over its useful life.	LPSCo financial statements are included in the Appendix of this Amendment Application		Appendix E
• Provide a time line that outlines the period of time necessary for carrying out plan implementation.	A draft construction schedule for the Palm Valley facility is provided in Appendix D of this application.		Appendix D
• Provide financial information indicating the method and measures necessary to achieve project financing (Section 201 CWA or Section 604 may apply).	LPSCo financial statements are included in Appendix E of this Amendment Application		Appendix E
IMPLEMENTATION			
Describe impacts and implementation requirements of the Plan:			
• Describe impacts on existing WWTFs (e.g., Sanitary district, infrastructure/facilities, and certificated areas).	The re-routing of 1.1 MGD to the new Palm Valley WRF will impact the City of Goodyear's 157th Ave. WWTP. LPSCo will be selling 1.0 MGD of their current 1.4 MGD capacity allocation back to the City of Goodyear. These impacts will be positive for the city operations allowing Goodyear time to upgrade and expand the 157th Ave. facility.	20	

• Describe how and when existing package plants will be connected to a regional system.	Not Applicable. There are no existing package plants in the LPSCo service area.	NA	
• Describe the impact on communities and businesses affected by the plan.	No significant impacts to the surrounding community or businesses are expected from the implementation of the amended plan.	20	
• If a municipal WWT system is proposed, describe how WWT service will be provided until the municipal system is completed (i.e., will package plants and septic systems be allowed and under what circumstances; interim services).	Not Applicable for the Palm Valley WRF. The Sarival WRF service area will continue to flow to the 157th Ave. plant until LPSCo's remaining 0.4 MGD capacity is exhausted. At which time, the Phase I Sarival WRF will be constructed.	9	
PUBLIC PARTICIPATION			
• Submit copy of mailing list used to notify the public of the public hearing on the 208 amendments. (40 CFR, Chapter 1, part 25.5)	Public Participation will be satisfied through the MAG amendment process.	21	
• List location where documents are available for review at least 30 days before public hearing.	Public Participation will be satisfied through the MAG amendment process.	21	
• Submit copy of the public notice of the public hearing as well as an official affidavit of publication from the area newspaper. Clearly show the announcement appeared in the newspaper at least 45 days before the hearing.	Public Participation will be satisfied through the MAG amendment process.	21	
• Submit affidavit of publication for official newspaper publication.	Public Participation will be satisfied through the MAG amendment process.	21	
• Submit responsiveness summary for public hearing.	Public Participation will be satisfied through the MAG amendment process.	21	

20 YEAR NEEDS

20-Year Needs

The Maricopa Association of Governments (MAG) is the Designated Management Planning Agency with the authority under Section 208(2)(b) of the Clean Water Act to prepare the Regional Water Quality Management Plan for the Maricopa County Planning Area. The purpose of this application is to request a Clean Water Act Section 208 amendment to the current Regional Water Quality Management Plan. The requested amendments include:

Amendment Item #1:
The construction of a new LPSCo owned and operated 8.2 MGD Palm Valley water reclamation facility (WRF) on McDowell Road between Bullard Avenue and Litchfield Road in the City of Goodyear. The purpose of this new facility is for the reclamation of wastewater flows from the current Litchfield Park Service Company (LPSCo) service area and portions of the Regional Analysis Zone (RAZ) 265 and 266. The expanded service area for the Palm Valley WRF will have a general boundary from the I-10 freeway north past Camelback Road and west from Dysart Road to Bullard Avenue. Permits that will be required for the Palm Valley WRF will include an ADEQ Reuse Permit for irrigation of existing golf courses and parks as well as an APP permit for both reuse and recharge. In the event that not all effluent water can be reused and recharged a NPDES will be in place to allow a secondary point of discharge.

Amendment Item #2:
The construction of a new LPSCo owned and operated 8.2 MGD Sarival WRF at Sarival Avenue and McDowell Road in the City of Goodyear. The purpose of this new facility is for the reclamation of wastewater flows from the remaining portions of RAZ 265. The service area for the Sarival WRF will have a general boundary from the I-10 freeway north to Camelback Road and west from Bullard Avenue to Cotton Lane and sections between Cotton Lane and Perryville Road. Permits that will be required for the Sarival WRF will include an ADEQ Reuse Permit for irrigation of existing golf courses and parks as well as an APP permit for both reuse and recharge. In the event that not all effluent water can be reused and recharged a NPDES will be in place to allow a secondary point of discharge.

LPSCo has a current allocation of 1.4 MGD capacity at the City of Goodyear 157th Avenue WWTP. It is estimated that the sewer generation from the LPSCo service area will exceed the current 1.4 MGD capacity allocation beginning in the year 2001. To accommodate existing and future flows, two new wastewater treatment plants are proposed. The proposed LPSCo wastewater treatment plants are the Palm Valley and Sarival WRFs. Combined, the new treatment facilities will provide tertiary wastewater treatment and reclamation for all of the sewage generated in RAZ 265, 266 and two additional developments outside these planning areas (Wigwam Creek and Stardust Development).

The Palm Valley WRF will be designed and constructed in two phases. Phase I will have an average day capacity of 4.1 MGD and a full build-out capacity of 8.2 MGD. Preliminary engineering design of Phase I has begun. The facility is expected to be complete and operational by December 2001.

To conserve time, LPSCo has opted for a design/build approach for the initial phase of this facility. The second phase expansion is anticipated to occur after approximately 2012. The initial flow to the Palm Valley facility will come from diversion of the current 1.1 MGD LPSCo flow to the City of Goodyear's 157th Avenue plant. As part of the original service agreement with the City of Goodyear, LPSCo has the right to sell part of or all of its 1.4 MGD capacity back to the city. At the completion of Phase I of the Palm Valley facility, LPSCo will sell 1.0 MGD of the 1.4 MGD capacity in the 157th Avenue plant back to the City of Goodyear.

This capacity will allow the City of Goodyear time to upgrade and expand their existing facilities to accommodate future flows from the Central Planning area (RAZ 280 and 281) and will provide a minimum of 0.4 MGD capacity surplus for LPSCo at the 157th Avenue plant.

After Phase I completion of the Palm Valley WRF, the second plant will be designed and constructed. This second facility will be constructed near the intersection of Sarival Avenue and McDowell Road. The Sarival WRF will also be designed and constructed in two phases. Phase I will have an average day capacity of 4.1 MGD with a build-out capacity of 8.2 MGD. The first phase of construction for this facility is anticipated to occur in approximately 2006. Until that time, current and near-future flows will use the existing 0.4 MGD surplus LPSCo capacity at the City of Goodyear 157th Avenue treatment plant. Phase II construction is anticipated to occur after 2016.

The following sub-sections describe the proposed wastewater treatment plants, alternatives, and regulatory requirements for implementation.

A. Description of Existing Wastewater Treatment Facilities

There are no existing wastewater treatment facilities in RAZ 265 or 266 to accommodate the increasing wastewater generation from the LPSCo service area. Currently, wastewater from the LPSCo service area is routed approximately 5.7 miles to the City of Goodyear 157th Avenue WWTP. Because the wastewater generation from the LPSCo service area is approaching the current capacity agreement of 1.4 MGD, LPSCo proposes to construct new water reclamation plants in their service area. The addition of the these facilities will reduce the overall capital and operational costs for current and future LPSCo customers by eliminating the need for 6 miles of additional trunk sewer and lift stations. In addition, consumers will benefit from the reduced cost of reclaimed water, which will be processed much closer to the point of reuse.

B. Summary of Alternatives

Five alternatives have been considered to evaluate the treatment of the increasing wastewater flows from the LPSCo service area. Black & Veatch, LLP prepared a study of these alternatives in July 1998. A copy of the *Preliminary Wastewater Planning Study for SunCor and Litchfield Park Service Company* is included in appendix F of this amendment application for further review. The following alternatives were studied:

Alternative 1:
LPSCo continued contribution of wastewater flow to the Goodyear 157th Avenue WWTP and purchase of additional capacity to be provided at the 157th Avenue WWTP.

Alternative 2:
Construction of a LPSCo wastewater treatment plant in the North Planning Area and sale of all interest in the City of Goodyear 157th Avenue WWTP.

Alternative 3:
LPSCo continued contribution of wastewater flow to the Goodyear 157th Avenue WWTP and purchase of additional capacity and process upgrades to be provided at the 157th Avenue WWTP.

Alternative 4:
Deferred construction of a North Planning Area wastewater treatment plant until the LPSCo wastewater contribution to the Goodyear 157th Avenue WWTP increases to 2.0 MGD.

Alternative 5:
Deferred construction of a North Planning Area wastewater treatment plant until the LPSCo wastewater contribution to the Goodyear 157th Avenue WWTP increases to 1.4 MGD.

A more thorough evaluation of these alternatives is presented in the *Preliminary Wastewater Planning Study for SunCor and Litchfield Park Service Company* (Black & Veatch report) provided in Appendix F. This 208 Amendment application is based on the same alternatives presented in the Black & Veatch report with the exception that Alternatives #2, #4 and #5 analyzed construction of a single facility and did not provide analysis for the construction of two "twin" plants. The capacities and locations of the two proposed LPSCo water reclamation facilities are the same as identified in the collection system study as the connection points for outfalls to the City of Goodyear 157th Avenue WWTP. In Black & Veatch's report, Alternative #2 was the recommended alternative from both a capital cost and long-term operational cost analysis. This proposed MAG 208 Amendment is based on Alternative #2 with the exception of the development of twin reclamation facilities. The following paragraphs summarize the five alternatives studied by Black & Veatch in 1998.

Alternative 1 – Continued Participation in Goodyear WWTP

Alternative 1 is based on the continued conveyance of LPSCo wastewater flow to the City of Goodyear 157th Avenue WWTP. Currently, wastewater from the LPSCo service area is conveyed through the Sarival Avenue 24" interceptor sewer. Sewage flows are anticipated to exceed the 24" sewer capacity by 2003. Thus, construction of additional sewer pipelines (approximately 5.7 miles of pipe) and the purchase of additional pipeline capacity from other parties would be required to handle ultimate flows from the service area. In addition, LPSCo would be required to fund or purchase additional treatment capacity at the City of Goodyear 157th Avenue WWTP.

This alternative also requires the construction of effluent pumping facilities and 5.7 miles of transmission mains from the city's treatment facility to the LPSCo service areas for irrigation. This alternative has the highest capital, O&M, and present value costs of any of the other alternatives.

Alternative 2 – Construction of a LPSCo WRF

Alternative 2 provides for the design and construction of a LPSCo wastewater treatment plant in the North Planning Area and the sale of all capacity at the 157th Avenue plant. The existing 1.4 MGD capacity at the 157th Avenue WWTP would be provided in the new facility(s) located in the Northern Planning Area (RAZ 265 and 266). Because of the cost of maintenance and operations of the Goodyear facility and the replacement cost of the 1.4 MGD capacity in the 157th Avenue facility, the cost of this alternative was the lowest of all of the alternatives evaluated, but only slightly lower than Alternatives 4 and 5.

Alternative 3 - Continued Participation in Goodyear WWTP with Process Upgrades

This alternative is similar to Alternative 1 except that the existing City of Goodyear 157th Avenue WWTP aeration and filtration processes would be optimized to provide an increase in treatment capacity from 3.0 MGD to 8.0 MGD. It was estimated the upgrade and expansion would cost approximately $14 million to $16 million. The upgrade would allow LPSCo to obtain a total capacity of 3.0 MGD at the city's treatment facility until the year 2008. At that time, an additional 5.2 MGD capacity would be required to handle additional wastewater flows from the LPSCo service area.

This alternative is less expensive than Alternative 1, but significantly more expensive than Alternatives 2,4 and 5.

Alternative 4 – Participation in Goodyear WWTP to 2.0 MGD; then construction of a LPSCo WRF

Alternative 4 is similar to the recommended alternate to construct a LPSCo wastewater treatment plant in the North Planning Area (Alternate 2). They differ in that the construction of the LPSCo plant(s) would be delayed for approximately 3 years (2003). LPSCo currently has 2.0 MGD of capacity in the Sarival Avenue 24" interceptor sewer. Because LPSCo has a treatment capacity allocation of only 1.4 MGD at the City of Goodyear 157th Avenue WWTP, an additional 0.6 MGD of treatment capacity is required to fully maximize the trunk sewer capacity. LPSCo could fund the additional treatment capacity as stated above in Alternative 3.

This alternative has only slightly higher capital cost as compared to Alternative 2 because it maximizes the use of the existing Sarival Avenue 24" interceptor sewer.

Alternative 5 - Participation in Goodyear WWTP to 1.4 MGD; then construction of a LPSCo WRF

Alternative 5 is similar to Alternative 4 with the exception that wastewater flow from the LPSCo service area will be conveyed to the 157th Avenue WWTP at the LPSCo maximum allocated treatment capacity of 1.4 MGD. As in Alternative 4, the construction of the proposed North Planning Area treatment plant(s) would be delayed 1 to 2 years. The current flow from the LPSCo service area is 1.1 MGD and is expected to exceed the maximum allocated treatment capacity of 1.4 MGD by the year 2001.

Alternative 5 is similar in cost to Alternative 4 but substantially less than Alternatives 1 and 3.

C. Discussion of the Proposed Construction of Two New LPSCo WRFs

1. Site Location and Property Ownership

   The proposed wastewater treatment plants will be constructed in City of Goodyear, Maricopa County, Arizona. Figure 2 in Appendix A illustrates the proposed location of the two treatment facilities. Both the Palm Valley WRF and the Sarival WRF will be constructed on property currently owned by SunCor Development Company. The property will be sold to Litchfield Park Service Company for the purpose of maintaining and operating the two facilities. The Palm Valley WRF will be located on McDowell Road between Bullard Avenue and Litchfield Road. The Sarival WRF will be located near the intersection of Sarival Avenue and McDowell Road.

2. Population Estimates

For the purpose of this amendment, four regional areas are used to define the total LPSCo service area. These four areas include the City of Goodyear's Regional Analysis Zone (RAZ) 265, RAZ 266 (Litchfield Park), the Stardust Development service area, and the Wigwam Creek service area. For planning purposes, these areas are expected to contribute wastewater flow to the two proposed wastewater treatment plants. Figure 1 in Appendix A illustrates the areas that make up the complete LPSCo service area.

The following table summarizes the population projection for each of the four service areas in the LPSCo service area through the year 2020. The population numbers presented for RAZ 265 and 266 are taken from the MAG *Socioeconomic Projections Interim Report* (June, 1997). The Stardust Development and the Wigwam Creek Development service areas were assumed to be excluded from the RAZ 265 and 266 population numbers and are taken from separate sewer conveyance studies by SMF Engineering and Black & Veatch LLP.

	Population by Planning Area				
Year	RAZ 265[1]	RAZ 266[1] (Litchfield Park)	Stardust Development[2]	Wigwam Creek Development[2]	Total
2000	8,671	4,876	3,011	3,746	20,304
2005	11,336	6,517	6,500	7,200	31,553
2010	14,410	8,452	8,600	10,700	42,162
2015	20,493	12,561	Built-out	Built-out	52,354
2020	30,139	14,688	Built-out	Built-out	64,127

[1] Source: *June 1997 MAG Socioeconomic Projections Interim Report.*

[2] Calculated by P.A.C.E. Full build-out AAD flows were taken from the *Draft Stardust/Wigwam Creek Conveyance and Treatment Study*. Full build-out for Stardust and Wigwam Creek was assumed for the years between 2008 and 2010. Calculation assumptions: Unit flows of 100 gpcpd and a 50% population increase every five years.

Future wastewater flows were studied in *Addendum Number 2 to the Wastewater Master Plan Litchfield Master Planned Community* (SMF Report) that was prepared by SMF Engineering Corporation in January 1998. Black & Veatch prepared the *Preliminary Wastewater Planning Study for SunCor and Litchfield Park Service Company* in July 1998. The SMF Report only provides full build-out wastewater flow projections. The Black & Veatch report used the full build-out wastewater flow projections from the SMF Report and calculated the flow projections over time. The following table summarizes wastewater estimates based on MAG and Black & Veatch population estimates:

Year	Wastewater Flow Projections (MGD)			
	Based on MAG Projections		Based on Black & Veatch Report	
	AAD	Peak Hourly[1]	AAD	Peak Hourly[1]
2000	2.03	4.47	1.32	2.90
2005	2.66	5.85	3.12	6.86
2010	3.43	7.55	5.49	12.08
2015	4.79	10.54	7.87	17.31
2020	6.41	14.10	10.24	22.53

[1] Calculated by P.A.C.E. with a peaking factor of 2.2.

The wastewater flow projections from the Black & Veatch Report generally have a higher annual average day flow than the MAG interim projections. For the purpose of this amendment and future planning, the Black & Veatch population numbers are assumed to be more accurate because the Black & Veatch report was specific to the Goodyear North Planning Area where as the MAG projections are based on countywide modeling.

3. Water Reclamation Facility Description

The Palm Valley and Sarival WRFs will be based on biological oxidation by the activated sludge process. Both treatment plants will include screening, grit removal, anoxic/aerobic biological nutrient removal, ozone disinfection, and multi-medium filtration. The treatment process will utilize anoxic mixing, aerobic mixing, and static reaction capabilities to provide biological oxidation, nitrification, denitrification, phosphorous removal, and clarification within one reactor tank. To provide process redundancy and obtain a Phase I average-day capacity of 4.1 MGD, a minimum of two reactor tanks will be constructed.

Wastewater will be treated to exceed the current ADEQ Title 18 requirements for unrestricted irrigation re-use. There currently are four 18-hole golf courses served by LPSCo with four future courses planned and numerous public parks, which will be converted to reclaimed water irrigation. LPSCo plans to provide the reclaimed water at less cost than current groundwater or surface water prices. Effluent from the treatment facilities will be stored in lined golf course lakes and water feature amenities then distributed as needed for irrigation. It is estimated that the irrigation demand in the North Planning Area will not require as much reclaimed water as will be produced, therefore a secondary discharge system will be developed for both plants to allow for groundwater recharge of the underlying aquifer. A summary of water balance calculations for each phase of expansion is presented in the Appendix of this application.

Both facilities will generate waste sludge, which will be directed to an aerobic digestion process. The sludge digestion process will provide pathogen and vector attraction reduction equivalent to the EPA title 40 CFR art 503 regulations for Class A biosolids. Biosolids will be stored and sold or hauled to landfill for disposal.

a) Facility Capacity

Both the Palm Valley WRF and Sarival WRF will be constructed in two general phases. The Palm Valley facility Phase I will have an average day capacity of 4.1 MGD with a second phase expansion to 8.2 MGD. The Sarival facility will have a Phase I average day capacity of 4.1 MGD and a full build-out capacity of 8.2 MGD. The two new wastewater treatment facilities will be capable of treating the projected wastewater flows from the LPSCo service area with a 38% reserve capacity for projection errors and modifications from the assumed modeling land uses. The projected wastewater flows will be divided between the two wastewater treatment plants and development of certain areas will dictate actual facility construction and expansion schedules. The following summarizes the proposed treatment plant capacities and anticipated construction time frames:

Treatment Plant	**Annual Average Day Treatment Capacity**		
	Phase I (year)	Phase II (year)	Total Capacity
Palm Valley WRF	4.1 MGD (2001)	4.1 MGD (2012)	8.2 MGD
Sarival WRF	4.1 MGD (2006)	4.1 MGD (2016)	8.2 MGD
		TOTAL	**16.4 MGD**

b) Facility Location

The proposed locations of the two treatment plants were based on information provided in the *Addendum Number 2 to Wastewater Master Plan Litchfield Master Planned Community* prepared by SMF Engineering in January 1998 (SMF report). The SMF report is provided in Appendix G for reference. The report evaluated the projected wastewater flows for build-out conditions of the Goodyear North Planning Area and the proposed locations of collection sewers. The report identified two trunk sewer connection locations for conveying wastewater from the North Planning Area to the City of Goodyear 157th Avenue WWTP. The entire North Planning Area could be served by a combination of the existing lift stations and gravity collection sewers with major additions to the two main trunk sewers (approximately 5.7 miles of sewer). These two trunk connections are in the general location of the proposed wastewater treatment facilities.

Currently, wastewater from the eastern portion of the LPSCo service area flows to a junction point near the intersection of Litchfield Road and McDowell Road. From this location, the wastewater is pumped to another lift station at Bullard Avenue and McDowell Road. Additional wastewater flows from the remainder of the LPSCo service area are collected at this lift station and pumped west of the RID Canal and then by gravity to an outfall located at the intersection of Sarival Avenue and McDowell Road. From this point, all wastewater is conveyed to the City of Goodyear 157th Avenue WWTP.

The proposed Palm Valley WRF has been located to eliminate both existing lift station. The flows to the Palm Valley WRF will be by gravity and new gravity trunk line will be built on McDowell Road between the two old lift stations. The proposed Sarival WRF has been located to intercept the remaining wastewater flow at the Sarival Avenue outfall.

c) Wastewater Reclamation Requirements

Treated effluent from the Palm Valley WRF and the Sarival WRF will be reclaimed for irrigation and recharge. The treated effluent is expected to of very high water quality, which will meet or exceed all local, state and federal requirements. A summary of water balance showing the projected reclaimed water production and re-use volumes are provided in Appendix C.

Reclaimed wastewater will be used in non-restricted areas such as parks and golf courses. Treated effluent is expected to exceed Arizona Administrative Code Title 18, Chapter 9 reclaimed water quality criteria for the irrigation of wastewater where public access is not restricted. Reuse activities will comply with the requirements of reuse permits issued through the Arizona Department of Environmental Quality (ADEQ) and Maricopa County Department of Environmental Services. Both facilities will require ADEQ Aquifer Protection Permits (APP).

As the amount of reclaimed water increases and exceeds seasonal irrigation demands, reclaimed wastewater will be directed to recharge facilities. Reclaimed wastewater for recharge will be required to meet the aquifer water quality standards established by ADEQ. These activities will be conducted in compliance with the Underground Storage Facility and Water Recovery Permits issued by the Arizona Department of Water Resources (ADWR).

d) Stormwater Discharges

The construction and operation of the proposed wastewater treatment plants are not anticipated to produce stormwater discharges. The treatment plants will be designed to contain stormwater runoff onsite. There will be no non-point discharges of stormwater from the proposed treatment plants. The EPA and ADEQ will permit any stormwater discharges to Waters of the United States under the National Pollutant Discharge Elimination System (NPDES) program.

4. Sanitary Districts, Private Utilities, and WRF Service Areas

The proposed locations of the Palm Valley WRF and the Sarival WRF are within the current LPSCo service area in the City of Goodyear. Neighboring cities and communities within a 3-mile radius include the City of Avondale, Litchfield Park, and Unincorporated areas of Maricopa County.

The construction of the proposed treatment plants will directly impact the City of Goodyear's 157th Avenue WWTP. 1.1 MGD of existing wastewater flow from the LPSCo service area will be re-routed to the new Palm Valley facility.

LPSCo will sell 1.0 MGD of their 1.4 MGD capacity allocation back to the City of Goodyear. Sewage flow to the 157th Avenue treatment facility is nearing the current plant capacity of 3.0 MGD. The re-routing of the current LPSCo service area flow and the acquisition of 1.0 MGD capacity will allow the City of Goodyear time to upgrade processes and expand the 157th Avenue WWTP to better serve the Central Goodyear Planning Area. In addition, the City of Goodyear will not have to include the North Planning Area when considering expansion to their treatment and collection facilities.

No other existing treatment facilities, sanitary districts or certified service areas would be impacted by the construction of the two treatment plants.

D. Permitting Requirements

The Palm Valley WRF and the Sarival WRF will require the following permits and clearances:

- Aquifer Protection Permit (APP) issued by the Arizona Department of Environmental Quality (ADEQ)
- Reclaimed Wastewater Reuse Permit
- 401 Water Quality Certification issued by ADEQ
- Underground Storage Facility permit and Water Storage permit for groundwater recharge by the Arizona Department of Water Resources (ADWR)
- Archeological and Native Plants clearances through the Arizona State Land Department, and an Environmental Assessment – Phase I clearance
- Right-of-way easement from the Arizona State Land Department
- Biosolids (sewage sludge) re-use requirements as stated in 40 CFR 503 and regulated by the Environmental Protection Agency
- EPA/ADEQ NPDES Permit

E. Pretreatment Requirements

The Code of Federal Regulations Part 403 Section 403.8 states, "any POTW with a total design flow of 5 million gallons per day and receiving from industrial users pollutants which pass through or interfere with the operation of the POTW or are otherwise subject to pretreatment standards, will be required to establish a pretreatment program." No industrial users are anticipated to discharge into the two proposed wastewater treatment plants. Thus, neither facility is required to comply with pretreatment requirements. If industrial users are added to the service area of either facility, a pretreatment program will be developed with the industrial user being subject to pretreatment standards as regulated by the EPA.

F. Sludge Management Requirements

The Palm Valley WRF and the Sarival WRF will be subject to biosolids regulations as promulgated in 40 CFR 503. Sewage sludge will be generated from both treatment plants. As defined in 40 CFR 501, sewage sludge means any solid, semi-solid, or liquid residue removed during the treatment of municipal waste water or domestic sewage. Sewage sludge includes, but is not limited to, solids removed during primary, secondary, or wastewater treatment, scum, septage, portable toilet pumpings, Type III Marine Sanitation device pumpings, and sewage sludge products. Sewage sludge does not include grit, screening, or ash generated during the incineration sewage. The 40 CFR 503 regulatory requirements include standards for the use and disposal of sludge and consist of general requirements, pollutant limits, management practices and operational standards for the final use or disposal of sewage sludge generated during the treatment of domestic sewage. It also includes pathogen and vector attraction reduction requirements for sewage sludge applied to land or placed in a surface disposal site.

The two proposed wastewater treatment plants will meet the 40 CFR Part 32 requirements for classification of sewage sludge as Class A Biosolids. By meeting the most stringent requirements for sludge treated for re-use, the biosoilds produced at the facilities will be available for use by farming operations as well as private residential use.

II. Construction

A. Construction and Operation Responsibility

Litchfield Park Service Company will develop and implement the plan for the construction and operation of the Palm Valley WRF, the Sarival WRF and related service areas. Litchfield Park Service Company will be solely responsible for funding the project. LPSCo's most recent Corporate Financial Statement is presented in Appendix E.

The proposed schedule of construction for the Palm Valley WRF is shown in Appendix D. The permitting phase of the project is anticipated to take approximately 6 months. Construction will follow immediately.

B. Sources of Pollution

The construction of the wastewater treatment plants will not be a significant source of pollution. Anticipated pollution from construction activities include fugitive dust, construction equipment exhaust emissions, and construction related solid waste. Erosion control measures during construction and grading will be implemented to prevent potential storm water runoff to water bodies. The developer and project contractor shall comply with local regulatory requirements and provisions of construction permits issued.

III. Financing and Other Actions to Implement Plan

A. Financing Plan

Litchfield Park Service Company has made financial plans for the construction and operation of the proposed treatment plants. The new facilities will be constructed using private, tax exempt and or developer/development funds.

B. Financing Capability to Construct the Facility

Litchfield Park Service Company has the financial capacity to construct and operate the Palm Valley WRF and the Sarival WRF. A copy of LPSCo's 1999 Corporate Financial Statement is included in Appendix E.

IV. Impact and Implementation Plan

A. Implementation Plan

The implementation of construction and operation of the wastewater treatment plants will be planned and executed by the Litchfield Park Service Company. LPSCo has hired an engineering firm and construction firm to design/build the Palm Valley Wastewater Treatment Plant. Design completion is expected to be finished in September 2000. A draft schedule of construction is provided in Appendix D.

LPSCo will hire ADEQ certified operational staff to properly operate and maintain the new wastewater treatment plants. These staff members will be involved in the planning, design and construction of the two facilities. Upon completion of the Palm Valley WRF, the contractor is required to provide 6 months of operation and maintenance training to LPSCo's treatment plant staff.

B. Impacts of the Proposed Wastewater Treatment Plants

The construction and operation of the Palm Valley WRF and the Sarival WRF are not expected to adversely impact any neighboring municipality, sanitary district, certificated area, community or business. The Palm Valley WRF will initially alleviate excess wastewater flow to the City of Goodyear's treatment facility by re-routing 1.1 MGD currently conveyed to the 157th Avenue WWTP.

Potential environmental issues include odor, noise, vectors and hazardous materials. The following briefly discuss and addresses these issues.

Odors: The biological treatment process utilizes a significant amount of sub-surface aeration reducing the potential for odor problems. Both plants will include odor-scrubbing systems for the headworks and sludge pressing areas. The sludge is in an aerated liquid state while on-site and during removal for sludge disposal, reducing the potential for odor concerns from sludge processing operations.

Noise: All process equipment will be enclosed in insulated masonry buildings. Additionally, the aeration blowers will be provided with critical silencers and housed in sound attenuation enclosures. All pumps and aerators will be submersible type and will not produce noise.

Vectors: The treatment facilities will be properly operated and maintained to reduce vector attraction. Sludge processing facilities will be covered and enclosed in building structures. The irrigation storage areas will be prevented from becoming breeding area for mosquitoes and other insects by circulation of stored water and the introduction of mosquito fish.

Hazardous Materials: The wastewater treatment facility will not accept any hazardous materials. Only municipal sewage from the LPSCo service areas will be accepted. An emergency plan will be developed to isolate and contain any hazardous materials discovered. The proposed treatment system does not require the use of any hazardous materials beyond the storage of liquid sodium hypochlorite, ozone for disinfection and diesel fuel for the back-up power generator. A current set of Material Safety Data Sheets (MSDS) will be maintained for all chemicals, polymers, and bio-augmentation products use at the facilities.

C. Solution for Casitas Bonitas

LPSCo recognizes that a serious situation exists at Casitas Bonitas that has eluded a solution to date. LPSCo is willing to provide wholesale wastewater services to Casitas Bonitas with certain conditions:

- LPSCo to have involvement with closure of existing facility.
- That the ACC grant specific rates to allow the treatment without any economic hardship in existing LPSCo customers or the company.

V. Public Participation

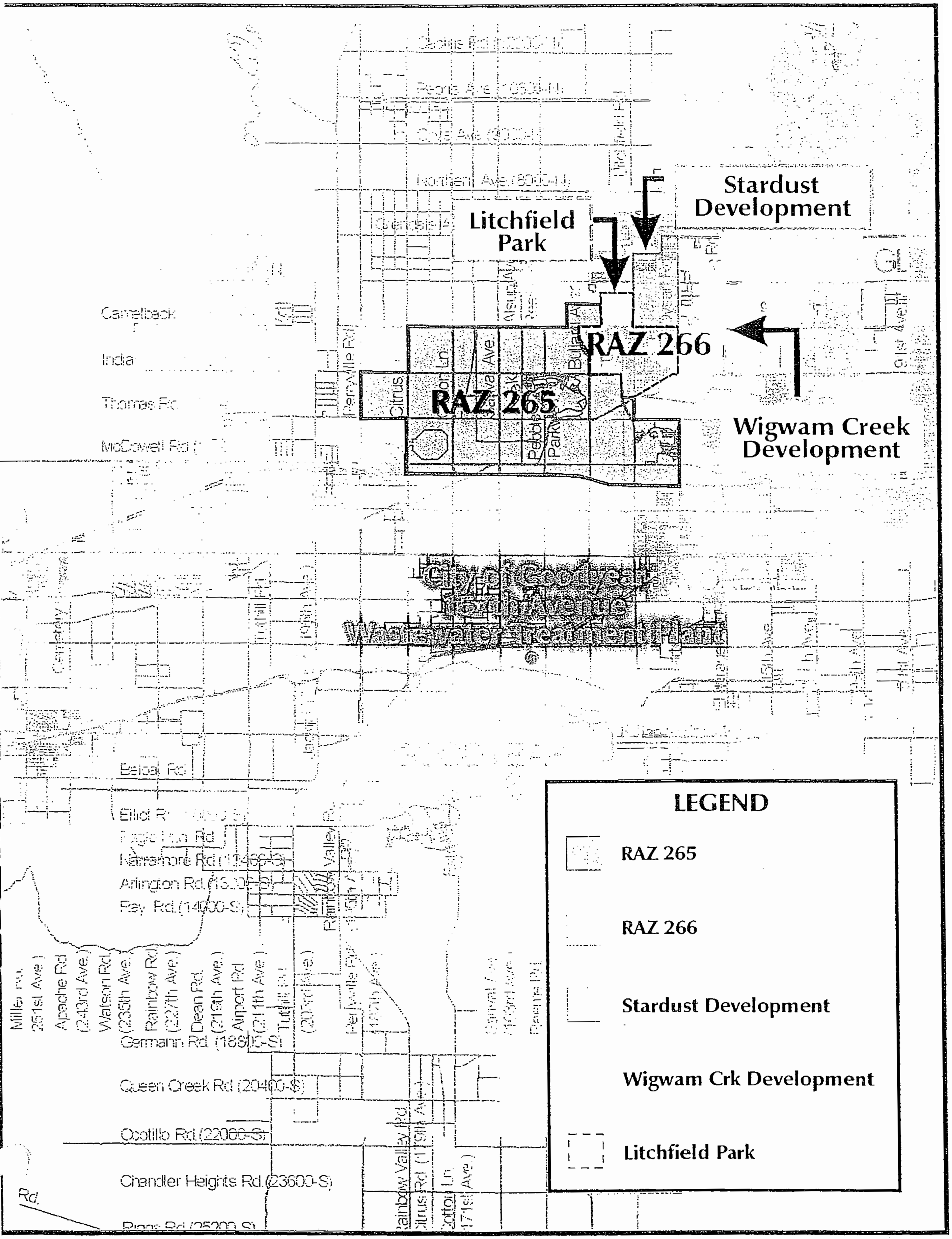
As part of the MAG Water Quality Management Plan Amendment Process, the Maricopa Association of Governments (MAG) with cooperation of the City of Goodyear is responsible for ensuring that the following actions are implemented after submittal of the draft 208 Amendment:

- Notify all parties of a public hearing on the 208 Amendment by sending notices to interested parties at least 30 days prior to the public hearing. The notice may

include the date, time, subject and location of the public hearing for the 208 Amendment.

- Notify public at least 45 days in advance of the public hearing by advertising in a publication. The notice should may the date, time, subject and location of the public hearing for the 208 Amendment.
- Notify public that draft amendments are available for public viewing 30 days before the hearing. This may include the location, days, and time of availability.
- Submittal of an affidavit of publication of the public notice.
- Submittal of a responsiveness summary for the public hearing.

APPENDIX A
LOCATION AND SITE MAPS


Stardust Development
Litchfield Park
RAZ 266
RAZ 265
Wigwam Creek Development
Camelback
Thomas Rd
Germann Rd. (18800-S)
Queen Creek Rd (20400-S)
Ocotillo Rd (22000-S)
Chandler Heights Rd. (23600-S)
LEGEND
RAZ 265
RAZ 266
Stardust Development
Wigwam Crk Development
Litchfield Park

Treatment Schematic

Headworks

Grit

Screen

Sequential Batch Reactors

Blower #1

Blower #2

Stand-by Blower

RAS

RAS

SBR #1

SBR #2

Secondary Treatment

Influent Wet Well

Pre Treatment

Anoxic Reactor

WAS

Tertiary Filtration

Filter

O_3 O_3

CL_2

Ozone Contact Tank

Out To Reuse

Effluent Storage

Sludge Drying

To Reuse

Primary Aerobic Dig.

Secondary Aerobic Dig.

Supernatant Return

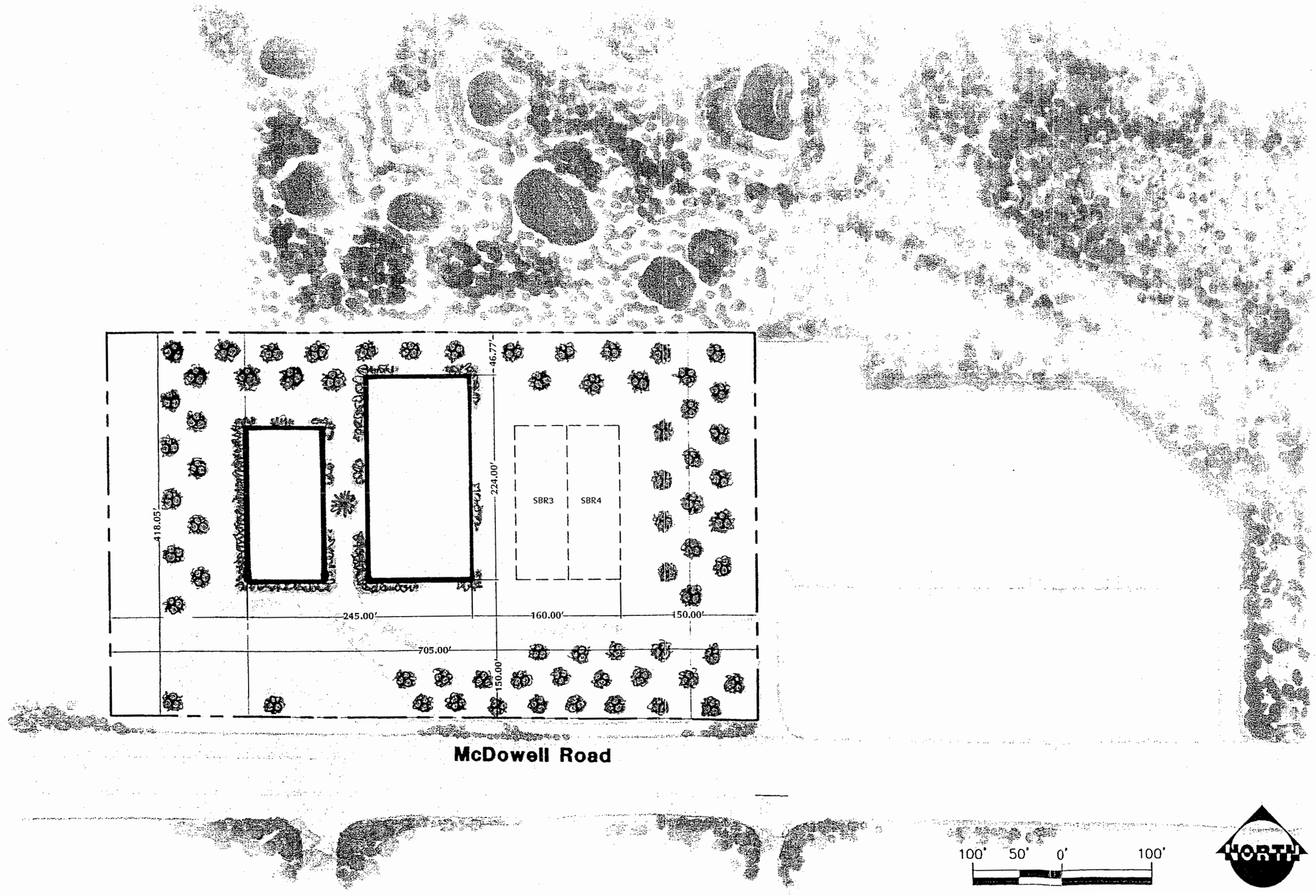
PERC

Pacific Environmental Resources Corp.

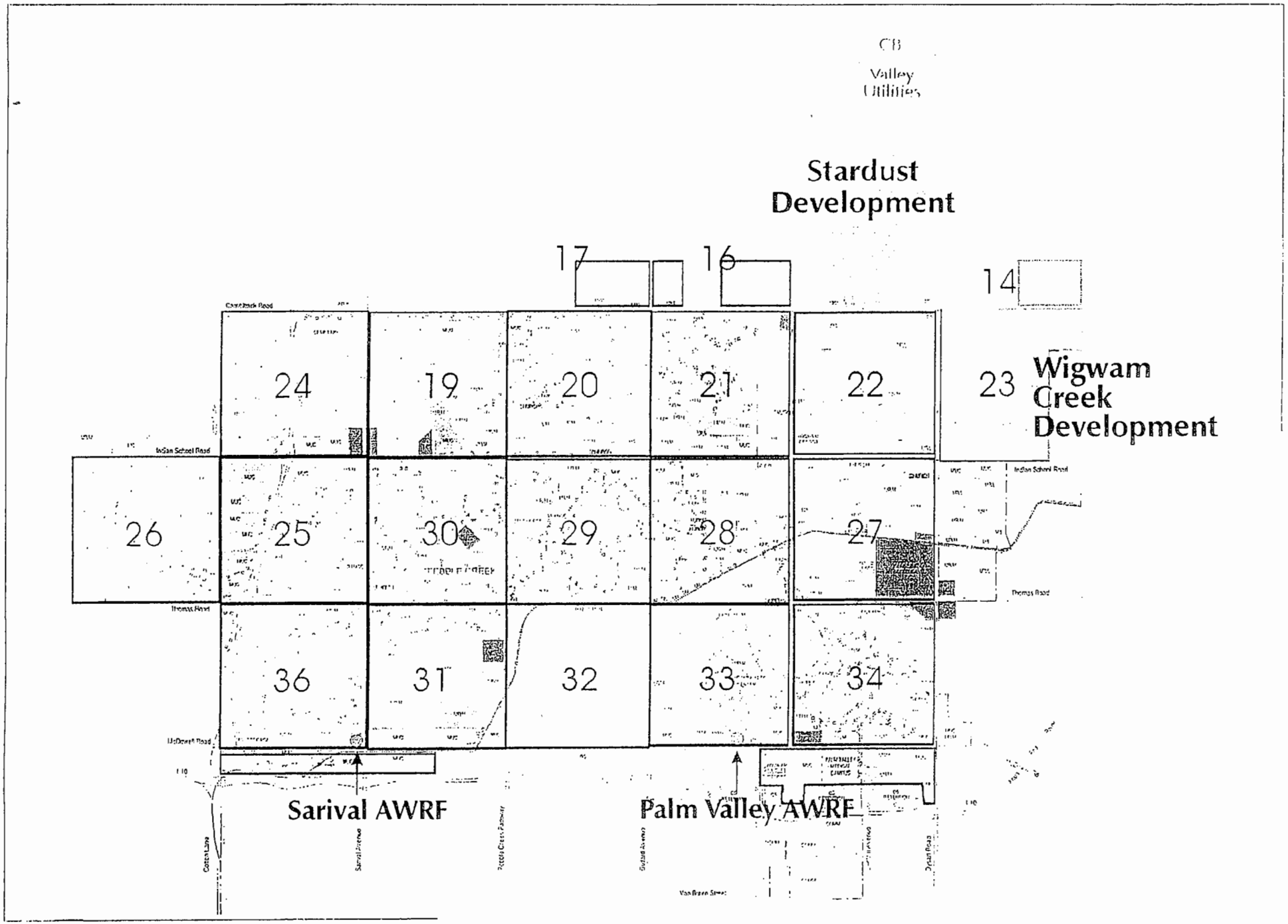
PACE

PACIFIC ADVANCED CIVIL ENGINEERING

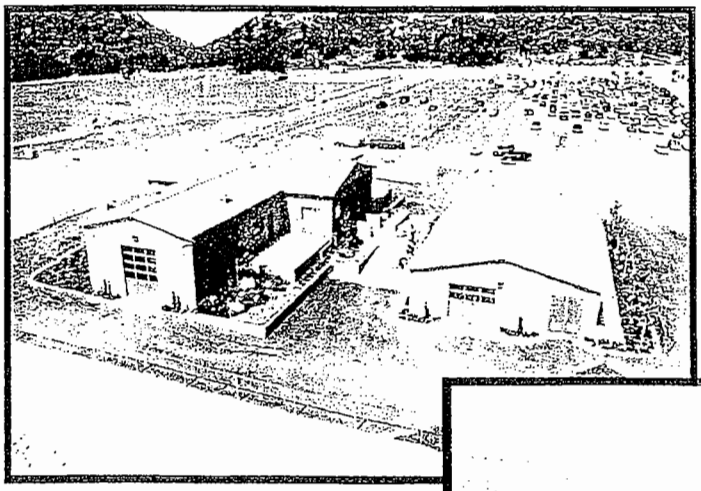
Palm Valley Facility Site

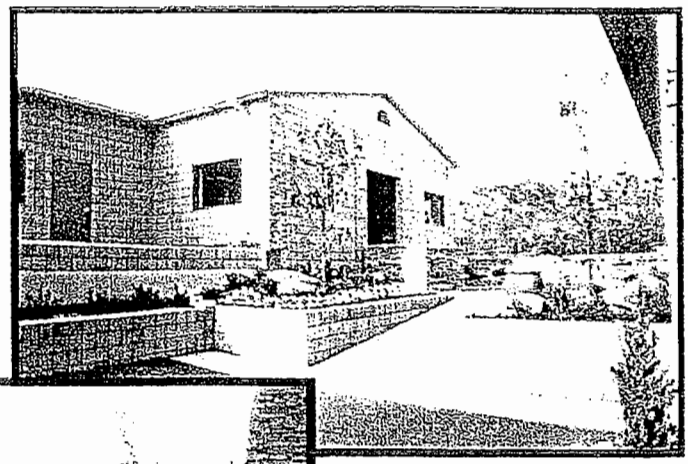


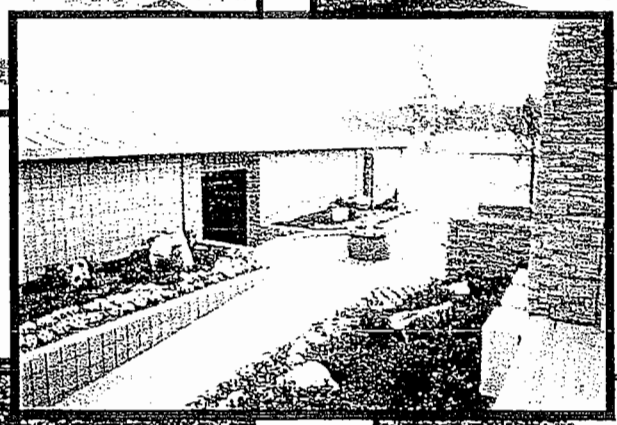
Wastewater Service Areas

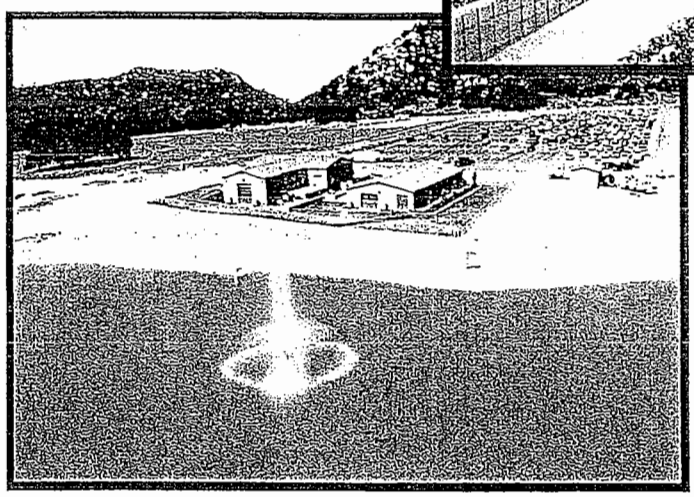


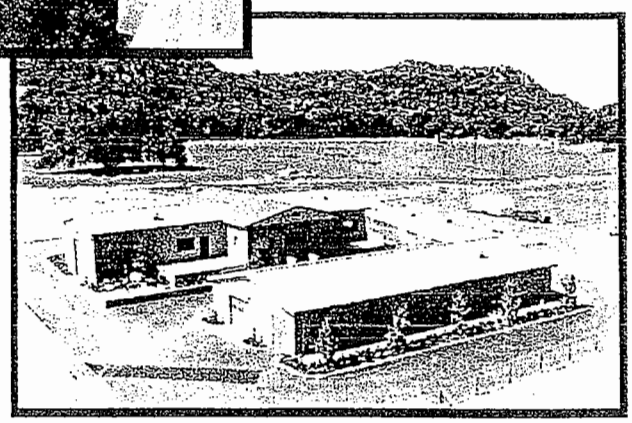
WATER RECLAMATION FACILITY











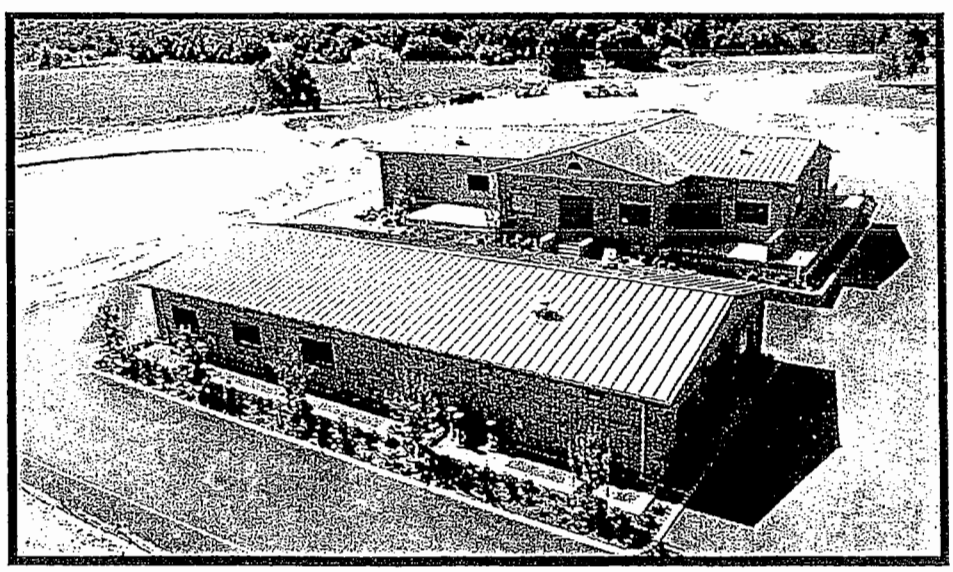
BARONA CASINO-LAKESIDE, CALIFORNIA
750,000 GPD - EXPANDABLE TO 1.5 MILLION.

DESIGNED BY:

PACE
PACIFIC ADVANCED
CIVIL ENGINEERING

CONSTRUCTED BY:

PERC
Pacific Environmental
Resources Corp.



APPENDIX B
PALM VALLEY WRF
PROCESS DESIGN CRITERIA

TREATMENT CALCULATIONS
for
LPSCO PALM VALLEY WRF

ENT DESIGN FLOW RATES		PEAKING FACTORS	
a Day Generation ADG (MGD)	4.1		1.0
imum Day Generation (MGD)	8.2		2.0
Hour Generation (GPM)	6,264		2.2
In (mg/l) =	220		
SS In (mg/l) =	300		
KN In (mg/l) =	30		
n (mg/l) =	8		
(lbs/day) =	7511.0		
(lbs/day) =	10242.2		
(lbs/day) =	1024.2		
P (lbs/day) =	273.1		

XIC REACTOR	
ber of Basins	1
th (ft)	106.25
Width (ft)	52.25
luid Depth Low Level (ft)	12.5
Depth Stop Interact Level (ft)	20.0
Depth Alarm Level (ft)	23.0
Tank Working Volume (gal)	830,514
age Tank Working Volume (gal)	673,937
Storage Time @ Peak Hour Generation (min)	70
Average Hydraulic Retention Time (hrs)	3.9

JENTIAL BATCH REACTORS	
ber of Basins	2
ength of Reactor (ft)	160.25
Width of Reactor (ft)	52.25
Fluid Depth @ TWL (ft)	24.0
nt Depth (ft)	5.0
Volume / Reactor @ TWL (gal)	1,503,132
ecant Volume / Reactor (gal)	313,153
Average Hydraulic Retention Time (hrs)	17.6
Decant Rate (gpm)	16,500

H REACTOR OPERATIONS			
nt Individual Pump Capcity (GPM)	5500		
Total Batch Time Avalible (min.)	220.0	110.0	100.0
Total Batch Time Avalible (hrs.)	3.7	1.8	1.7

	ADG	MDG	PHG
Operating Batch Volume (gal/batch)	313,153	313,153	313,153
Total Number of Influent Pumps	3	3	3
Number of Influent Pumps In Service	2	2	3
nt Pumping Rate (GPM)	11,000	11,000	16,500
s/Fill Time (min.)	28.5	28.5	19.0
REACT			
React Time per Batch (min.)	81.5	26.5	31.0
LE / DECANT			
n Settling Velocity (ft/hr)	6.00	6.00	6.00
ecant Settle Time (min)	45.0	45.0	45.0
Settled Sludge Level (ft)	4.5	4.5	4.5
nfluent Pumping Rate (GPM)	11,000	11,000	16,500
nt Rise Rate (ft/hr)	10.54	10.54	15.81
ettleing Rate (ft/hr)	-4.54	-4.54	-9.81
Sludge Level at End of Batch (ft)	2.3	2.3	1.4
Settle/Decant Time (min.)	73.5	73.5	64.0
Total Batch Time Actual (min.)	183	128	114
Batch Time Actual (hrs.)	3.1	2.1	1.9

E CONTRACTOR / FLOW EQ BASIN	
Number of Basins	1
Length of Cell (ft)	106.50
of Cell (ft)	52.50
num Fluid Depth @ TWL (ft)	17
num Storage Volume @ TWL (gal)	710,983
Total Discharge Pump Rate (gpm)	6000
Total Discharge Capacity (MGD)	8.6
Max Operating Drawdown Required (ft)	7.1
n Ozone Dose Concentration (mg/l)	5.0
ired Ozone Production (lbs/day)	360.0

TERTIARY FILTRATION	
Number of Filter Units	8
Area per Unit (sq-ft)	125.0
Avalible Filter Area (sq-ft)	1,000.0
nt Max Flow Rate (GPM)	6,000.0
ter Loading Rate (gpm/sq-ft)	6.0

AERATION CALCULATIONS	
Given:	
lbs O2 / lbs BOD =	1.2
lbs O2 / lbs TKN =	4.6
lbs O2 / lbs NO3 (50% Denitrofication Credit) =	2.3
Type of Aeration	Jet Aeration
Alpha correction =	0.90
Beta correction =	0.95
Theta correction =	1.02
D.O. operational (mg/l) =	1.00
D.O. clean water (mg/l) =	9.09
D.O. @ std. temp (mg/l)=	11.23
Wastewater Temp (C) =	20.0
lbs 02 / lbs air =	0.23
lbs air / cf air =	0.08
Clean water eff. (%) =	22.00
Calculated Values:	
Actual O2 Demand (lbs O2/day) =	11,369
SOTR/AOTR ratio =	1.3
Standard O2 demand (lbs O2/day) =	15,048.8
Standard O2 demand (lbs O2/hr/tank) =	990.1
Hours of Aeration / Day	7.6
Blower Capacity Required (CFM)	3,021

SLUDGE DIGESTERS / STORAGE	
Number of Reactors	2
Length of Reactor (ft)	106.50
Width of Reactor (ft)	52.50
Maximum Fluid Depth @ TWL (ft)	18.0
Maximum Storage Volume / Reactor @ TWL	752,806
Production lbs of Dry Sludge / lb BOD	0.8
Lbs of Dry Solids per Day	6,009
% VSS in Waste Sludge	80.0
Lbs VSS in Waste Sludge	4,807
Initial Volume of Sludge per Day (gpd)	96,063
Initial % Solids	0.75
Pre-thickened % Solids	2.0
Sludge Digester #1	
Liquid Sludge Volume Entering Digester #1 (gal/d)	36,024
Total Days of Sludge Storage - Digester #1	20.9
Average Low Sludge Temp Deg. C	25.0
Total Deg.-Days Digester #1	522
% VSS Reduction (from EPA curve)	40.0
Solids Destroyed in Digester #1 (lbs/d)	1,922.8
Heat Generated by VSS Red. Digester #1 (btu/hr)	520,759
Sludge Digester #2	
Solids Entering Digester #2 (lbs/d)	4,086
Liquid Sludge Volume Entering Digester #2 (gal/d)	24,496
Total Days of Sludge Storage - Digester #2	15.4
Average Low Sludge Temp Deg. C	55.0
Total Deg.-Days Digester #2	845
Total Deg.-Days Digesters #1 & #2	1,368
Total % VSS Reduction for System	50.0
Solids Destroyed in Digester #2 (lbs/d)	480.7
Heat Generated by VSS Red. Digester #2 (btu/hr)	130,190
Total Digestion	
Total Dry Solids Output (lbs/day)	3,605
Total Sludge Volume to Dewatering System (Cubic M/d)	82

APPENDIX C
EFFLUENT REUSE WATER BALANCE CALCULATIONS

LPSCo Storage / Reuse Balance Calculations

Phase I

Palm Valley Ph I - Sarival Not Constructed

DATE: 6/16/00
BY: PACE
JOB #: #7244E

AREA OF TURF IRRIGATION * 570.0 ACRES
AREA OF LAKE SURFACE 150.6 ACRES

	DAYS/ MON.	EFFLUENT WATER SUPPLY (MGD)	EFFLUENT WATER SUPPLY (AC-FT)	TURF IRRIGATION FT/MO/AC	TURF IRRIGATION AC-FT	LAKE EVAPORATION FT/MO/AC	LAKE EVAPORATION AC-FT	TOTAL IRR&EVAP AC-FT	EXCESS EFFLUENT AC-FT	WATER TO RECH. AC-FT	IN LAKE STORAGE AC-FT	LAKE WATER SURF. ELEV.	
JANUARY	31	4.10	390.08	0.27	153.90	0.26	39.16	193.06	197.03	0.00	460.82	103.06	
FEBRUARY	28	4.10	352.33	0.31	176.70	0.33	49.70	226.40	125.93	0.00	586.75	103.90	
MARCH	31	4.10	390.08	0.38	216.60	0.51	76.81	293.41	96.68	0.00	683.43	104.54	
APRIL	30	4.10	377.50	0.47	267.90	0.66	99.40	367.30	10.20	0.00	693.63	104.61	
MAY	31	4.10	390.08	0.58	330.60	0.83	125.00	455.60	-65.52	0.00	628.12	104.17	
JUNE	30	4.10	377.50	0.70	399.00	0.89	134.03	533.03	-155.54	0.00	472.58	103.14	
JULY	31	4.10	390.08	0.78	444.60	0.92	138.55	583.15	-193.07	0.00	279.51	101.86	
AUGUST	31	4.10	390.08	0.75	427.50	0.83	125.00	552.50	-162.42	0.00	117.10	100.78	
SEPTEMBER	30	4.10	377.50	0.68	387.60	0.71	106.93	494.53	-117.03	0.00	0.00	100.00	START
OCTOBER	31	4.10	390.08	0.52	296.40	0.56	84.34	380.74	9.35	0.00	9.35	100.06	
NOVEMBER	30	4.10	377.50	0.38	216.60	0.38	57.23	273.83	103.67	0.00	113.02	100.75	
DECEMBER	31	4.10	377.50	0.30	171.00	0.37	55.72	226.72	150.78	0.00	263.79	101.75	
TOTALS	365	49.20	4580.32	6.12	3488.40	7.25	1091.85	4580.25	0.07	0.00			

TOTAL YEARLY STORAGE GAIN	0.07	AC-FT
MAX STORAGE REQUIRED	693.63	AC-FT
MAX LAKE WATER SURF. ELEV. CHANGE	4.54	FEET

*Assumes 5 Golf Courses and Park Areas

LPSCo Storage / Reuse Balance Calculations

Phase II

Palm Valley Ph I - Sarival Ph I

DATE: 6/16/00
BY: PACE
JOB #: #7244E

AREA OF TURF IRRIGATION * 900.0 ACRES
AREA OF LAKE SURFACE 150.6 ACRES

	DAYS/ MON.	EFFLUENT WATER SUPPLY (MGD)	(AC-FT)	TURF IRRIGATION FT/MO/AC	AC-FT	LAKE EVAPORATION FT/MO/AC	AC-FT	TOTAL IRR&EVAP AC-FT	EXCESS EFFLUENT AC-FT	WATER TO RECH. AC-FT	IN LAKE STORAGE AC-FT	LAKE WATER SURF. ELEV.	
JANUARY	31	8.20	780.16	0.27	243.00	0.26	39.16	282.16	498.01	320.10	230.49	101.53	
FEBRUARY	28	8.20	704.66	0.31	279.00	0.33	49.70	328.70	375.97	320.10	286.36	101.90	
MARCH	31	8.20	780.16	0.38	342.00	0.51	76.81	418.81	361.36	320.10	327.62	102.18	
APRIL	30	8.20	755.00	0.47	423.00	0.66	99.40	522.40	232.60	320.10	240.12	101.59	
MAY	31	8.20	780.16	0.58	522.00	0.83	125.00	647.00	133.17	320.10	53.19	100.35	
JUNE	30	8.20	755.00	0.70	630.00	0.89	134.03	764.03	-9.04	0.00	44.15	100.29	
JULY	31	8.20	780.16	0.78	702.00	0.92	138.55	840.55	-60.39	0.00	-16.24	99.89	
AUGUST	31	8.20	780.16	0.75	675.00	0.83	125.00	800.00	-19.83	0.00	-36.07	99.76	
SEPTEMBER	30	8.20	755.00	0.68	612.00	0.71	106.93	718.93	36.07	0.00	0.00	100.00	START
OCTOBER	31	8.20	780.16	0.52	468.00	0.56	84.34	552.34	227.83	320.10	-92.27	99.39	
NOVEMBER	30	8.20	755.00	0.38	342.00	0.38	57.23	399.23	355.77	320.10	-56.60	99.62	
DECEMBER	31	8.20	755.00	0.30	270.00	0.37	55.72	325.72	429.28	320.10	52.58	100.35	
TOTALS	365	98.40	9160.64	6.12	5508.00	7.25	1091.85	6599.85	2560.79	2560.79			

TOTAL YEARLY STORAGE GAIN	0.00	AC-FT
MAX STORAGE REQUIRED	327.62	AC-FT
MAX LAKE WATER SURF. ELEV. CHANGE	2.18	FEET

*Assumes 8 Golf Courses and Park Areas

LPSCo Storage / Reuse Balance Calculations

Phase III

Palm Valley Ph I &II - Sarival Ph I

DATE: 6/16/00
BY: PACE
JOB #: #7244E

AREA OF TURF IRRIGATION * 1200.0 ACRES
AREA OF LAKE SURFACE 180.0 ACRES

	DAYS/ MON.	EFFLUENT WATER SUPPLY (MGD)	(AC-FT)	TURF IRRIGATION FT/MO/AC	AC-FT	LAKE EVAPORATION FT/MO/AC	AC-FT	TOTAL IRR&EVAP AC-FT	EXCESS EFFLUENT AC-FT	WATER TO RECH. AC-FT	IN LAKE STORAGE AC-FT	LAKE WATER SURF. ELEV.	
JANUARY	31	12.30	1170.25	0.27	324.00	0.26	46.80	370.80	799.45	636.49	12.91	100.07	
FEBRUARY	28	12.30	1057.00	0.31	372.00	0.33	59.40	431.40	625.60	636.49	2.01	100.01	
MARCH	31	12.30	1170.25	0.38	456.00	0.51	91.80	547.80	622.45	636.49	-12.04	99.93	
APRIL	30	12.30	1132.50	0.47	564.00	0.66	118.80	682.80	449.70	636.49	-198.84	98.90	
MAY	31	12.30	1170.25	0.58	696.00	0.83	149.40	845.40	324.85	636.49	-510.49	97.16	
JUNE	30	12.30	1132.50	0.70	840.00	0.89	160.20	1000.20	132.30	0.00	-378.19	97.90	
JULY	31	12.30	1170.25	0.78	936.00	0.92	165.60	1101.60	68.65	0.00	-309.54	98.28	
AUGUST	31	12.30	1170.25	0.75	900.00	0.83	149.40	1049.40	120.85	0.00	-188.70	98.95	
SEPTEMBER	30	12.30	1132.50	0.68	816.00	0.71	127.80	943.80	188.70	0.00	0.00	100.00	START
OCTOBER	31	12.30	1170.25	0.52	624.00	0.56	100.80	724.80	445.45	636.49	-191.05	98.94	
NOVEMBER	30	12.30	1132.50	0.38	456.00	0.38	68.40	524.40	608.10	636.49	-219.45	98.78	
DECEMBER	31	12.30	1132.50	0.30	360.00	0.37	66.60	426.60	705.90	636.49	-150.04	99.17	
TOTALS	365	147.60	13740.96	6.12	7344.00	7.25	1305.00	8649.00	5091.96	5091.96			

TOTAL YEARLY STORAGE GAIN	0.00	AC-FT
MAX STORAGE REQUIRED	510.49	AC-FT
MAX LAKE WATER SURF. ELEV. CHANGE	2.84	FEET

*Assumes 8 Golf Courses and Expanded Park Areas

LPSCo Storage / Reuse Balance Calculations

Phase IV

Palm Valley Ph I &II - Sarival Ph II

DATE: 6/16/00
BY: PACE
JOB #: #7244E

AREA OF TURF IRRIGATION * 1200.0 ACRES
AREA OF LAKE SURFACE 180.0 ACRES

	DAYS/ MON.	EFFLUENT WATER SUPPLY (MGD)	EFFLUENT WATER SUPPLY (AC-FT)	TURF IRRIGATION FT/MO/AC	TURF IRRIGATION AC-FT	LAKE EVAPORATION FT/MO/AC	LAKE EVAPORATION AC-FT	TOTAL IRR&EVAP AC-FT	EXCESS EFFLUENT AC-FT	WATER TO RECH. AC-FT	IN LAKE STORAGE AC-FT	LAKE WATER SURF. ELEV.	
JANUARY	31	16.40	1560.33	0.27	324.00	0.26	46.80	370.80	1189.53	1000.00	482.00	102.68	
FEBRUARY	28	16.40	1409.33	0.31	372.00	0.33	59.40	431.40	977.93	1000.00	459.93	102.56	
MARCH	31	16.40	1560.33	0.38	456.00	0.51	91.80	547.80	1012.53	1000.00	472.46	102.62	
APRIL	30	16.40	1510.00	0.47	564.00	0.66	118.80	682.80	827.20	1000.00	299.65	101.66	
MAY	31	16.40	1560.33	0.58	696.00	0.83	149.40	845.40	714.93	612.05	402.54	102.24	
JUNE	30	16.40	1510.00	0.70	840.00	0.89	160.20	1000.20	509.80	612.05	300.29	101.67	
JULY	31	16.40	1560.33	0.78	936.00	0.92	165.60	1101.60	458.73	612.05	146.97	100.82	
AUGUST	31	16.40	1560.33	0.75	900.00	0.83	149.40	1049.40	510.93	612.05	45.85	100.25	
SEPTEMBER	30	16.40	1510.00	0.68	816.00	0.71	127.80	943.80	566.20	612.05	0.00	100.00	START
OCTOBER	31	16.40	1560.33	0.52	624.00	0.56	100.80	724.80	835.53	612.05	223.48	101.24	
NOVEMBER	30	16.40	1510.00	0.38	456.00	0.38	68.40	524.40	985.60	1000.00	209.08	101.16	
DECEMBER	31	16.40	1510.00	0.30	360.00	0.37	66.60	426.60	1083.40	1000.00	292.47	101.62	
TOTALS	365	196.80	18321.28	6.12	7344.00	7.25	1305.00	8649.00	9672.28	9672.28			

TOTAL YEARLY STORAGE GAIN	0.00	AC-FT
MAX STORAGE REQUIRED	482.00	AC-FT
MAX LAKE WATER SURF. ELEV. CHANGE	2.62	FEET

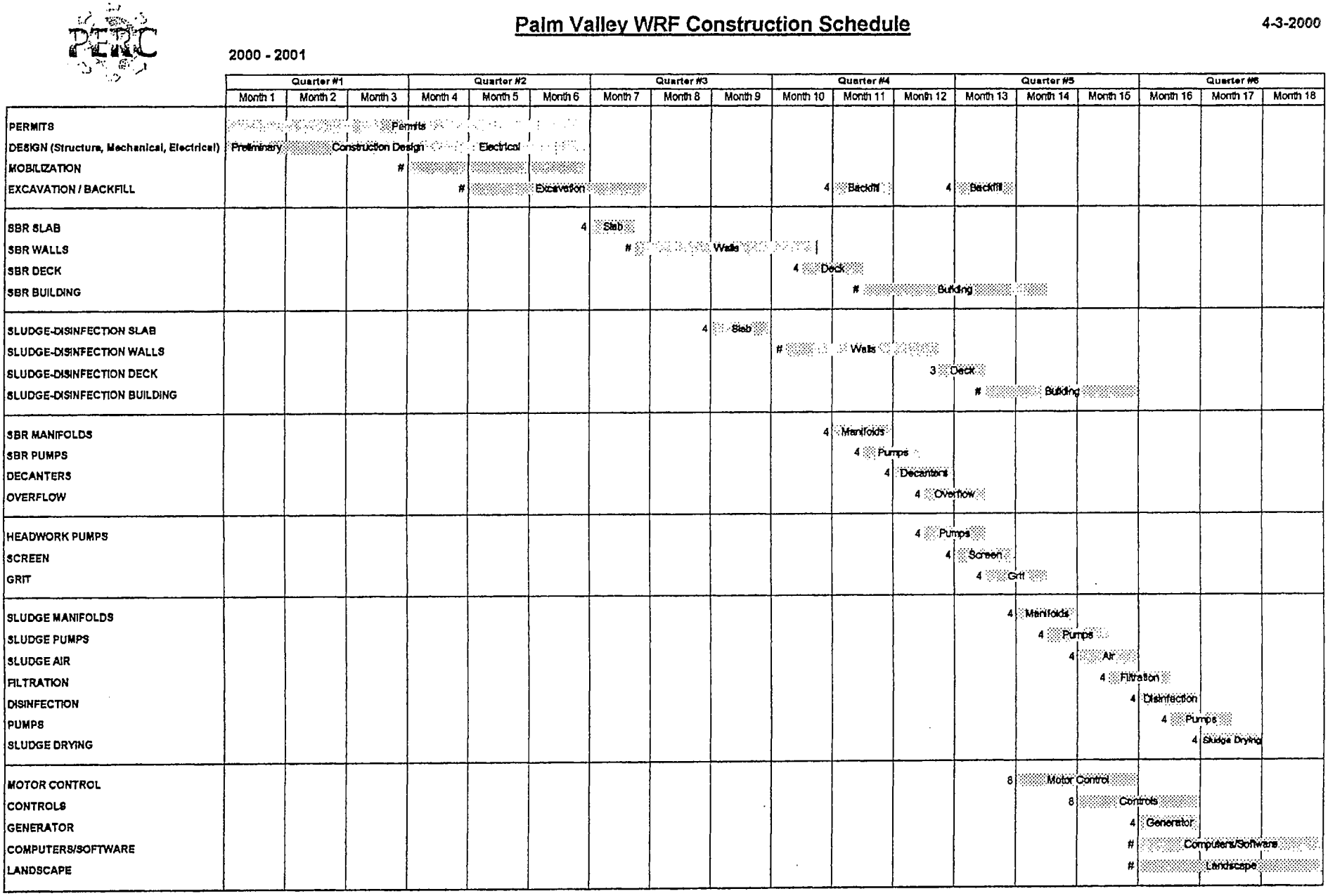
*Assumes 8 Golf Courses and Expanded Park Areas

APPENDIX D
PALM VALLEY
DRAFT CONSTRUCTION SCHEDULE

Palm Valley WRF Construction Schedule

4-3-2000

2000 - 2001



APPENDIX E
LPSCO FINANCIAL DOCUMENTATION
AND
PALM VALLEY WRF COST ESTIMATES

Deloifte &
Touche

Litchfield Park Service Company (A Wholly-Owned Subsidiary of SunCor Development Company, Inc.)

Financial Statements
Years Ended December 31, 1999 and 1998, and
Independent Auditors' Report

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[matsu

Deloitte & Touche

Deloitte & Touche LLP
Suite 1200
2901 North Central Avenue
Phoenix, Arizona 85012-2799

Telephone: (602)234-5100
Facsimile: (602) 234-5186

INDEPENDENT AUDITORS' REPORT

Board of Directors
Litchfield Park Service Company
Litchfield Park, Arizona

We have audited the accompanying balance sheets of Litchfield Park Service Company (a whollyowned subsidiary of SunCor Development Company, Inc.) (the "Company") as of December 31, 1999 and 1998, and the related statements of income, stockholders' equity, and cash flows for the years then ended. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, such financial statements present fairly, in all material respects, the financial position of the Company at December 31, 1999 and 1998, and the results of its operations and its cash flows for the years then ended in conformity with accounting principles generally accepted in the United States of America.

Deloitte & Touche LLP

April 25, 2000

LITCHFIELD PARK SERVICE COMPANY
(A Wholly-Owned Subsidiary of SunCor Development Company, Inc.)
BALANCE SHEETS
DECEMBER 31, 1999 AND 1998

ASSETS	1999	1998
UTILITY PLANT (Note 2):		
Utility plant in service	$15,634,263	$13,756,282
Less accumulated depreciation and amortization	1,962,842	1,719,292
Utility plant - net	13,671,421	12,036,990
CONSTRUCTION WORK IN PROGRESS	270,784	36,788
RESTRICTED CASH (Note 1)	3,800,490	
CURRENT ASSETS:		
Cash and cash equivalents	1,551,346	430,710
Accounts receivable	170,642	141,343
Due from SunCor-net (Notes 3, 4 and 5)	1,302,710	1,218,649
Prepaids and other assets		4,664
Total current assets	3,024,698	1,795,366
DEFERRED DEBITS:		
Unamortized debt issue costs - net of amortization	214,492	
Deferred rate case expense - net of amortization	29,125	49,071
Other	3,243	
Total deferred debits	246,860	49,071
TOTAL	$21,014,253	$13,918,215

(Continued)

LITCHFIELD PARK SERVICE COMPANY
(A Wholly-Owned Subsidiary of SunCor Development Company, Inc.)

BALANCE SHEETS
DECEMBER 31, 1999 AND 1998

LIABILITIES	1999	1998
CAPITALIZATION:		
Common stock, $10 par value - authorized, 500,000		
shares; 7,820 shares issued and outstanding	$ 78,200	$ 78,200
Paid-in capital	10,797,022	10,797,022
Retained earnings	1,744,312	1,331,226
Total capitalization	12,619,534	12,206,448
CURRENT LIABILITIES:		
Accounts payable	229,989	155,709
Accrued liabilities	146,376	61,305
CAP obligation (Note 5)	1,175,527	887,081
Total current liabilities	1,551,892	1,104,095
LONG-TERM DEBT - Net (Note 7)	5,226,393	
COMMITMENTS AND CONTINGENCIES (Notes 5 and 6)		
DEFERRED CREDITS AND OTHER LONG-TERM		
LIABILITIES:		
Meter deposits	707,524	586,162
Deferred income taxes (Note 4)	123,910	21,510
Customer advances (Note 8)	785,000	
Total deferred credits and other long-term liabilities	1,616,434	607,672
TOTAL	$21,014,253	$13,918,215

See notes to financial statements. (Concluded)

LITCHFIELD PARK SERVICE COMPANY
(A Wholly-Owned Subsidiary of SunCor Development Company, Inc.)

STATEMENTS OF INCOME
YEARS ENDED DECEMBER 31, 1999 AND 1998

	1999	1998
UTILITY OPERATIONS:		
Operating revenues:		
Water	$1,404,957	$1,122,188
Sewer	1,420,123	1,038,932
Miscellaneous income	28,332	
Total operating revenues	2,853,412	2,161,120
Cost of revenues:		
Water	270,139	204,651
Sewer	633,742	587,998
Total cost of goods sold	903,881	792,649
Gross margin	1,949,531	1,368,471
OPERATING EXPENSES:		
Depreciation and amortization	276,637	330,456
Outside services	351,024	365,820
Salaries and benefits	298,501	273,027
Other taxes	116,282	100,165
General and administrative	69,335	68,214
Rent (Note 6)	42,850	39,002
Income taxes (Note 4)	275,300	69,000
Total utility operating expenses	1,429,929	1,245,684
NET UTILITY OPERATING INCOME	519,602	122,787
OTHER INCOME (EXPENSE):		
Interest income	123,893	7,799
Other	366	(147)
Interest expense	(230,775)	(27,065)
Total other expense	(106,516)	(19,413)
NET INCOME	$ 413,086	$ 103,374

See notes to financial statements.

LITCHFIELD PARK SERVICE COMPANY (A Wholly-Owned Subsidiary of SunCor Development Company, Inc.)

STATEMENTS OF STOCKHOLDERS' EQUITY
YEARS ENDED DECEMBER 31, 1999 AND 1998

	Common Stock	Paid-in Capital	Retained Earnings	Total
BALANCE, JANUARY 1, 1998	$ 78,200	$ 6,762,239	$1,227,852	$ 8,068,291
Net income			103,374	103,374
Property contributed by SunCor		3,734,783		3,734,783
Forgiveness of notes payable by SunCor		300,000		300,000
BALANCE, DECEMBER 31, 1998	78,200	10,797,022	1,331,226	12,206,448
Net income			413,086	413,086
BALANCE, DECEMBER 31, 1999	$ 78,200	$10,797,022	$1,744,312	$12,619,534

See notes to financial statements.

LITCHFIELD PARK SERVICE COMPANY
(A Wholly-Owned Subsidiary of SunCor Development Company, Inc.)
STATEMENTS OF CASH FLOWS
YEARS ENDED DECEMBER 31,1999 AND 1998

	1999	1998
CASH FLOWS FROM OPERATING ACTIVITIES:		
Net income	$ 413,086	$ 103,374
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation and amortization	267,268	330,456
Deferred income taxes	102,400	(13,121)
Change in assets and liabilities:		
Accounts receivable-net	(29,299)	(28,787)
Due from SunCor - net	(84,061)	(225,116)
Prepaids and other assets	4,664	3,215
Deferred debits	(237,681)	(19,596)
Accounts payable	74,280	51,498
CAP obligation	288,446	298,162
Accrued liabilities	85,071	11,083
Meter deposits	121,362	106,374
Customer advances	785,000	
Net cash provided by operating activities	1,790,536	617,542
CASH FLOWS FROM INVESTING ACTIVITIES:		
Capital expenditures	(2,095,803)	(503,103)
Restricted cash	(3,800,490)	
Net cash used in investing activities	(5,896,293)	(503,103)
CASH FLOWS FROM FINANCING ACTIVITIES -		
IDA bond issuance	5,226,393	
INCREASE IN CASH AND CASH EQUIVALENTS	1,120,636	114,439
CASH AND CASH EQUIVALENTS, BEGINNING OF YEAR	430,710	316,271
CASH AND CASH EQUIVALENTS, END OF YEAR	$1,551,346	$ 430,710
SUPPLEMENTAL DISCLOSURE OF CASH FLOW INFORMATION- Cash paid for interest	$ 153,850	$ 27,065

See notes to financial statements.

LITCHFIELD PARK SERVICE COMPANY
(A Wholly-Owned Subsidiary of SunCor Development Company, Inc.)
NOTES TO FINANCIAL STATEMENTS
YEARS ENDED DECEMBER 31, 1999 AND 1998

1. BASIS OF PRESENTATION AND SIGNIFICANT ACCOUNTING POLICIES

Basis of **Presentation - Litchfield** Park Service Company (the "Company"), a wholly-owned subsidiary of SunCor Development Company, Inc. ("SunCor"), provides utility operations, water distribution and sewer services to the communities of Litchfield Park, Palm Valley and Pebble Creek in western Maricopa County, Arizona, which are regulated by the Arizona Corporation Commission ("Commission"). The utility operations are divided into two divisions, Water and Sewer. In accordance with an order of the Commission, the Company's accounting records are maintained in accordance with the uniform system of accounts prescribed by the National Association of Regulatory Utility Commissioners ("NARUC"). The accompanying financial statements reflect the rate-making policies of these commissions, and are prepared in accordance with Statement of Financial Accounting Standards ("SFAS") No. 71, *Accounting for the* Effects *of Certain Types of Regulation.* SFAS No. 71 requires a cost-based, rate-regulated enterprise to reflect the impact of regulatory decisions in its financial statements.

Significant accounting policies are summarized below:

a. *Utility plant* is stated at cost with depreciation provided on a straight-line basis at annual rates generally approximating 2.62 percent for water and 2.52 percent for sewer as set by the Commission in May 1998. Prior to May 1998, the Commission established depreciation rates of 3 percent for water and 5 percent for sewer. Expenditures for maintenance and repairs are charged to expense. The cost of replacements and betterments is capitalized. Contributions in aid of construction are accounted for as a reduction to utility plant and are amortized over the estimated life of the plant.

b. *Revenue Recognition and Cost of Revenues - Water* and sewer revenues are recognized at the time of billing to customers with the associated cost of water and sewer sold similarly recognized.

c. *Cash and cash equivalents* include temporary cash investments.

d. *Restricted cash* includes short-term investments that are to be used on capital projects prescribed by the IDA bond indenture agreement.

e. *Income Taxes - The* Company accounts for income taxes using SFAS No. 109, *Accounting for Income Taxes,* which requires that the liability method be used in calculating deferred income taxes.

The provision for income taxes includes federal and state income taxes currently payable and deferred federal and state income taxes arising from temporary differences between income reported for financial statement purposes and income tax purposes.

The Company is included in the consolidated income tax returns of Pinnacle West Capital Corporation (Parent of SunCor). Income taxes are allocated to the Company based on its separate Company taxable income or loss.

f. *Use of Estimates - The* preparation of the financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of income and expenses during the reporting period. Actual results could differ from those estimates.

g. *Accounting Standards - In* June 1998, the Financial Accounting Standards Board issued SFAS No. 133, *Accounting for Derivative Instruments and Hedging Activities,* which is effective for fiscal years beginning after June 15, 2000. SIAS No. 133 requires that entities recognize all derivatives as either assets or liabilities in the balance sheet and measure those instruments at fair value. The Company is currently evaluating the impact that this statement will have on its financial statements.

2. UTILITY PLANT

Utility plant at December 31 consists of the following:

	1999	1998
Utility plant -water	$ 6,499,364	$ 5,310,170
Utility plant - sewer	9,134,899	8,446,112
Other utility plant	870,539	916,643
Total	16,504,802	14,672,925
Contributions in aid of construction	(870,539)	(916,643)
Accumulated depreciation and amortization	(1,962,842)	(1,719,292)
Utility plant-net	$13,671,421	$12,036,990

3. RELATED PARTY TRANSACTIONS

Amounts due to and from SunCor at December 31 are as follows:

	1999	1998
Due from SunCor:		
Income taxes (payable) receivable	$ (85,552)	$ 87,348
Central Arizona Project ("CAP") subcontract reimbursement (Note 5)	1,434,932	1,146,486
Due to SunCor - accounts payable representing reimbursements for expenses paid	(46,670)	(15,185)
Due from SunCor - net	$1,302,710	$1,218,649

4. INCOME TAXES

The provision for income taxes for the years ended December 31 consists of the following:

	1999	1998
Current provision:		
Federal	$147,000	$ 69,800
State	25,900	12,300
Total current provision	172,900	82,100
Deferred provision	102,400	(13,100)
Total	$ 275,300	$ 69,000

A reconciliation of the provision for income taxes to the expected tax expense (computed by applying the federal statutory tax rate to income before income taxes) for the years ended December 31 is as follows:

	1999	1998
Computed expected tax expense	$ 234,000	$ 58,700
State income taxes, net of federal income tax benefit	41,300	10,300
Income tax expense	$ 275,300	$ 69,000

Deferred taxes consist primarily of accelerated tax depreciation and amortization of deferred debits.

5. COMMITMENTS AND CONTINGENCIES

The Company has entered into an agreement for up to 30 years for the long-term availability of 5,580 acre feet annually of CAP water. Under the agreement, the Company's outstanding obligation totaled $1,175,527 and $887,081 in 1999 and 1998, respectively, and will increase in various increments during the remaining term of the agreement. Over the next five years, the fixed portions will be $301,320 annually for 2000 through 2004, while the variable portions would be $70 per acre foot for 2000, $72 for 2001, $73 for 2002 and $75 for 2003. To date, $259,405 of fixed fees have been paid.

The obligation to CAP is currently due. To the extent that CAP requires payment, the Company's parent (SunCor) intends to fund the obligation in its entirety (Note 3). The Company and its parent are currently evaluating the eventual use of this right, including exchange or sale.

6. RENT EXPENSE AND FUTURE MINIMUM LEASE OBLIGATIONS

The Company leases its office space and equipment under noncancelable leases. Future minimum lease payments for the years ending December 31 total $88,717, payable as follows: 2000, $48,559; 2001, $27,459; and thereafter, $12,699. Total rent expense for 1999 and 1998 was $42,850 and $39,002,

7. LONG-TERM DEBT

In April 1999, the Company issued $5,335,000 in Industrial Development Authority ("IDA") Bonds. The net book value of the debt is reduced by the discount upon issuance of $108,607. These bonds accrue interest at a blended rate of 5.87 percent semiannually. Semi-annual payments are due in April and October of each year. These bonds mature at various dates from October 2001 through October 2023. Principal amounts due over the next five years are as follows: $0 in 2000, $120,000 in 2001, $125,000 in 2002, $135,000 in 2003 and $140,000 in 2004, and $4,815,000 thereafter. The IDA bond indenture agreement contains certain covenants, as prescribed in Section 5.12 of the IDA Loan Agreement, and restrictions. These funds are primarily restricted for use on capital projects. The Company has calculated all applicable covenants and has concluded that all covenants have been satisfied as of December 31, 1999.

8. CUSTOMER ADVANCES

In October 1999, the Company entered into an agreement with a developer whereby $785,000 of funds were advanced to the Company to be utilized for the construction of a sewer treatment facility for a development.

MODULE 54

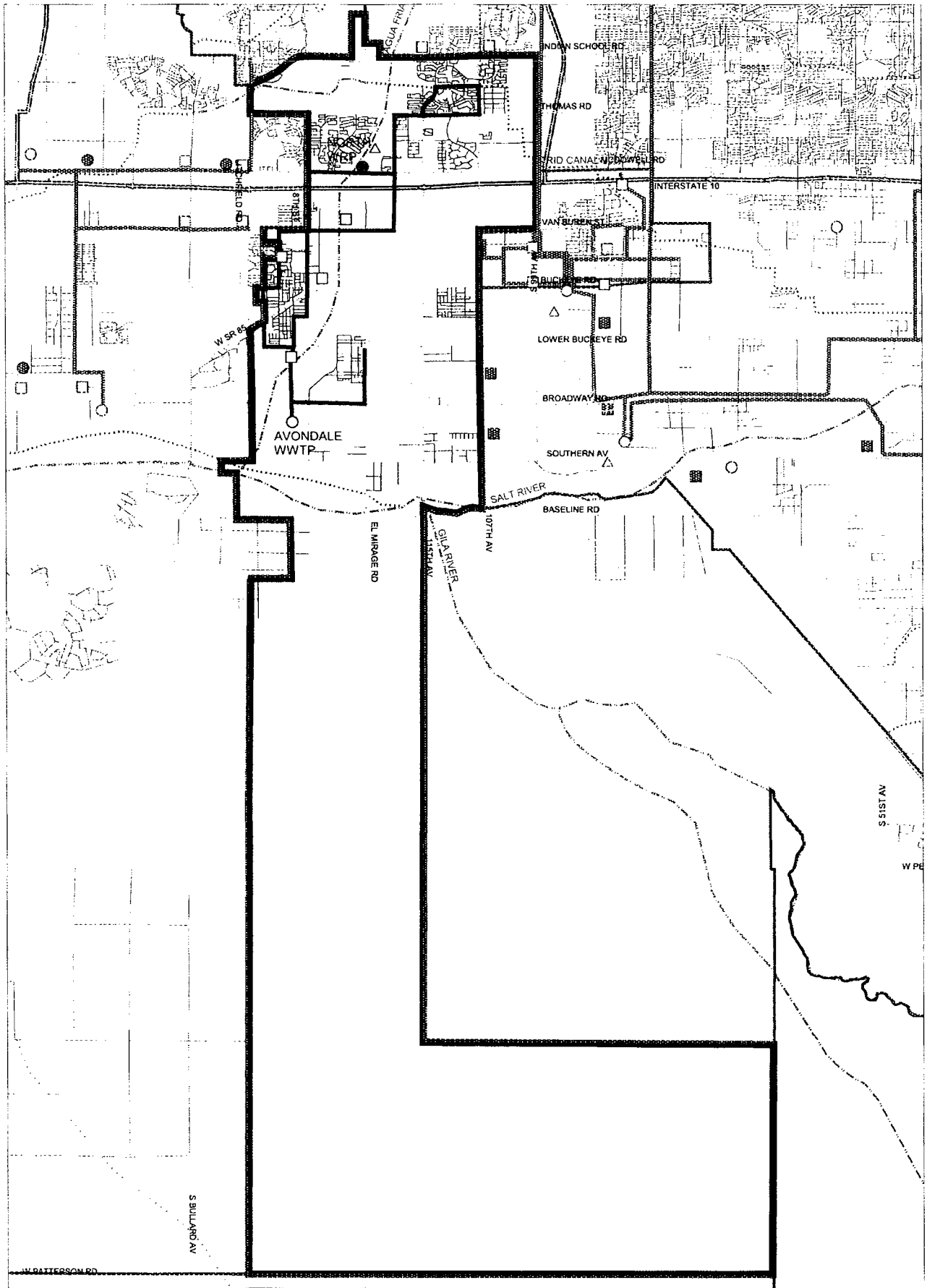
	Phase I 4.1 MGD	Phase II 8.2 MGD
1. Headworks/Lift Station:	**$1,235,200**	**$385,000**
a. Wetwell Structure		
b. Pumping		
c. Prescreen (Rotating Screen)		
d. Grit Removal (Vortex)		
e. Equipment Installation/Piping		
2. SBR Treatment Cells:	**$2,883,200**	**$2,783,200**
a. SBR Tank Structure		
b. SBR Jet Pumps		
c. SBR Manifold		
d. Blowers		
e. WAS Pumps		
f. Decanter and Vent Valve		
g. SBR Controls/Software		
h. Equipment Installation/Piping		
3. Disinfection + Filtration:	**$1,430,200**	**$1,235,000**
a. Structure		
b. Disinfection (O3 w/ Cl2 Back-up)		
c. Filtration		
d. Discharge Pumping Station		
e. Effluent Storage (not included)		
f. Piping/Installation		
4. Sludge Digesters/Storage:	**$1,436,600**	**$200,000**
a. Structure		
b. Mixing Pump		
c. Aeration Blowers		
d. Sludge Manifold		
e. Sludge Disposal Pump (for sludge discharge)		
f. Supernatant Return Pump (for sludge digester)		
g. Sludge Processing/Drying		
h. Piping/Installation		
5. Other Work:	**$1,950,100**	**$433,400**
a. Excavation + Backfill		
b. Office/Lab		
c. Filter/Sludge Digester/Shop/Equipment Buildings		
d. Paving/Landscape/Fencing		
e. Lab Equipment		
f. Back-up Power Supply		
g. Chemical Phosphorus Removal (Not Included)		
6. Engineering	**$1,286,900**	**$705,100**
a. Civil Design		
b. Electrical Design		
c. Permits (NPDES)		
d. 6 Month Training and Operations Contract		
SUB TOTAL	**$10,222,200**	**$5,741,600**
7. Construction	**$2,303,500**	**$906,500**
a. Eng. Services During Construciton		
b. General Conditions		
c. Construction Management		
d. Construction Contingency		
e. Bond and Taxes		
TOTAL COST PER PHASE	**$12,525,700**	**$6,648,100**
COST PER GALLON	**$3.06**	**$1.62**
TOTAL COST		**$19,173,800**
TOTAL COST per GALLON		**$2.34**

OPINION OF PROBABLE COST OF OPERATION AND MAINTENANCE

	GALLONS TREATED PER DAY				
	500,000 (12.5 % CAP)	1,000,000 (25 % CAP)	2,000,000 (50 % CAP)	3,000,000 (75 % CAP)	4,000,000 (100 % CAP)
POWER					
Assumes 1 HP = .9 kWh and $0.075 / kWh					
PROCESS					
(2) 175 HP BLOWER @ 8 HOURS / DAY	$95	$95	$95	$189	$189
(8) 50 HP MIXING PUMPS @ 12 HRS / DAY	$162	$162	$162	$324	$324
(2) 100 HP EFFLUENT PUMP @ 6 HRS / DAY	$10	$20	$41	$61	$81
(2) 40 HP INFLUENT PUMPS @ 12 HRS / DAY	$32	$32	$32	$65	$65
(2) 50 HP SLUDGE MIXER @ 12 HRS / DAY	$10	$20	$41	$61	$81
(2) 30 HP OZONE UNITS @ 12 HRS / DAY	$6	$12	$24	$36	$49
(2) 75 HP SLUDGE BLOWER @ 8 HRS / DAY	$21	$31	$41	$61	$81
TOTAL PROCESS POWER COST PER DAY	**$336**	**$372**	**$436**	**$797**	**$870**
MISCELLANEOUS					
HVAC 20 TON UNITS @ 8 HRS / DAY	$42	$42	$42	$42	$42
(1) LS SITE LIGHTING 10kW @ 12 HRS / DAY	$9	$9	$9	$9	$9
(1) LS SITE POWER 30kW @ 24 HRS / DAY	$54	$54	$54	$54	$54
TOTAL MISCELLANEOUS COST PER DAY	**$105**	**$105**	**$105**	**$105**	**$105**
PLANT OPERATIONS					
OPERATIONAL STAFF					
(1) STATE CERTIFIED WWTP OPERATOR 40 HRS / WEEK @ $35/HR (Incl. Benefits)	$200	$200	$200	$200	$200
(1) JUNIOR OPERATOR 40 HRS / WEEK @ $25/HR (Incl. Benefits)	$143	$143	$143	$143	$143
(1) GENERAL MAINTENANCE 20 HRS / WEEK @ $15/HR	$43	$43	$43	$43	$43
TOTAL STAFF COST PER DAY	**$386**	**$386**	**$386**	**$386**	**$386**
SLUDGE DE-WATERING AND DISPOSAL					
Assumes $0.15 / 1000 gallons of treated effluent (On-site Processing)	**$75**	**$150**	**$300**	**$450**	**$600**
EQUIPMENT					
SPARE PARTS / REPAIRS (ALLOWANCE @ $150,000 / YR)	**$171**	**$251**	**$331**	**$411**	**$411**
OTHER					
OPERATING PERMIT IN ARIZONA ($2,100 / YR)	$6	$6	$6	$6	$6
LAB CERTIFICATION PERMIT ($1,200 / YR)	$3	$3	$3	$3	$3
TELEPHONE SERVICE @ $60 / MONTH	$2	$2	$2	$2	$2
POT. WATER SERVICE @ $100 / MONTH	$3	$3	$3	$3	$3
TOTAL OTHER COSTS PER DAY	**$14**	**$14**	**$14**	**$14**	**$14**
LAB TESTS					
DAILY EFFLUENT TESTING - ON SITE (BY JUNIOR OPERATOR ABOVE) (BOD, TSS, COLIFORM, TURBIDITY, NO3, NO2, TKN, TP, COD)	$0	$0	$0	$0	$0
DAILY INFLUENT TESTING - ON SITE (BY JUNIOR OPERATOR ABOVE) (BOD, TSS, TOTAL NITROGEN, COD, MLSS)	$0	$0	$0	$0	$0
LAB EQUIP. / CHEMICALS (ALLOWANCE @ $45,000 / YR)	$75	$75	$75	$125	$125
HAZARDOUS WASTE - 1 EVERY 3 MONTHS @ $500 EACH	$6	$6	$6	$6	$6
TOTAL LAB COSTS PER DAY	**$81**	**$81**	**$81**	**$131**	**$131**
TOTAL OPERATIONS COSTS PER DAY	**$1,168**	**$1,359**	**$1,653**	**$2,294**	**$2,517**
COST PER ACRE-FOOT OF TREATED WATER	**$761**	**$443**	**$269**	**$249**	**$205**
COST PER 1000 GALLONS OF TREATED WATER	**$2.34**	**$1.36**	**$0.83**	**$0.76**	**$0.63**

APPENDIX B – MAG 208 Water Quality Management Plan, October 2002

The maps in this appendix were copied from the October 2002 MAG 208 Plan and show the planning areas for the municipalities in the LPSCo service area.



Avondale Municipal Planning Area

03/22/02

FIGURE 4.2

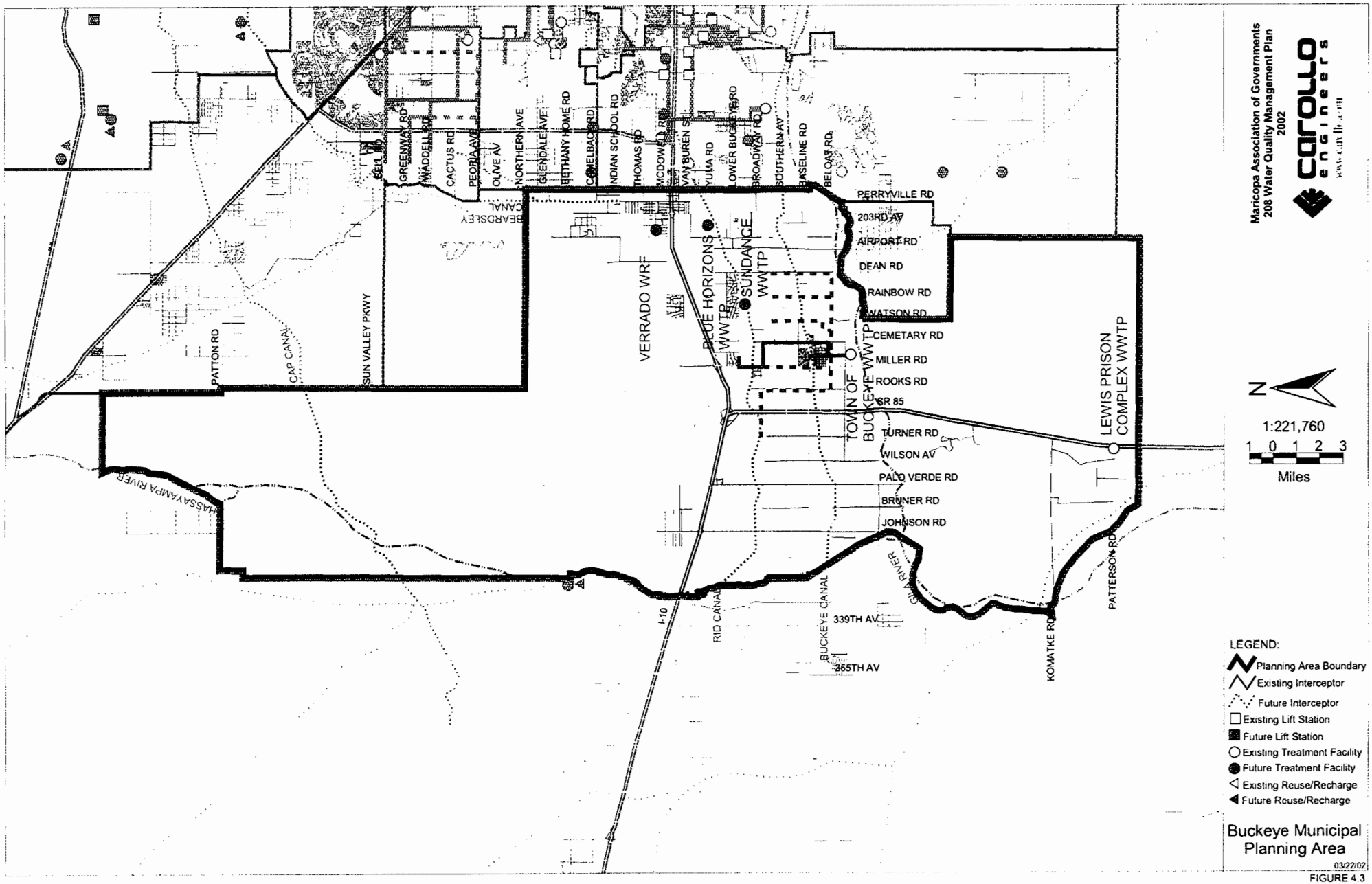
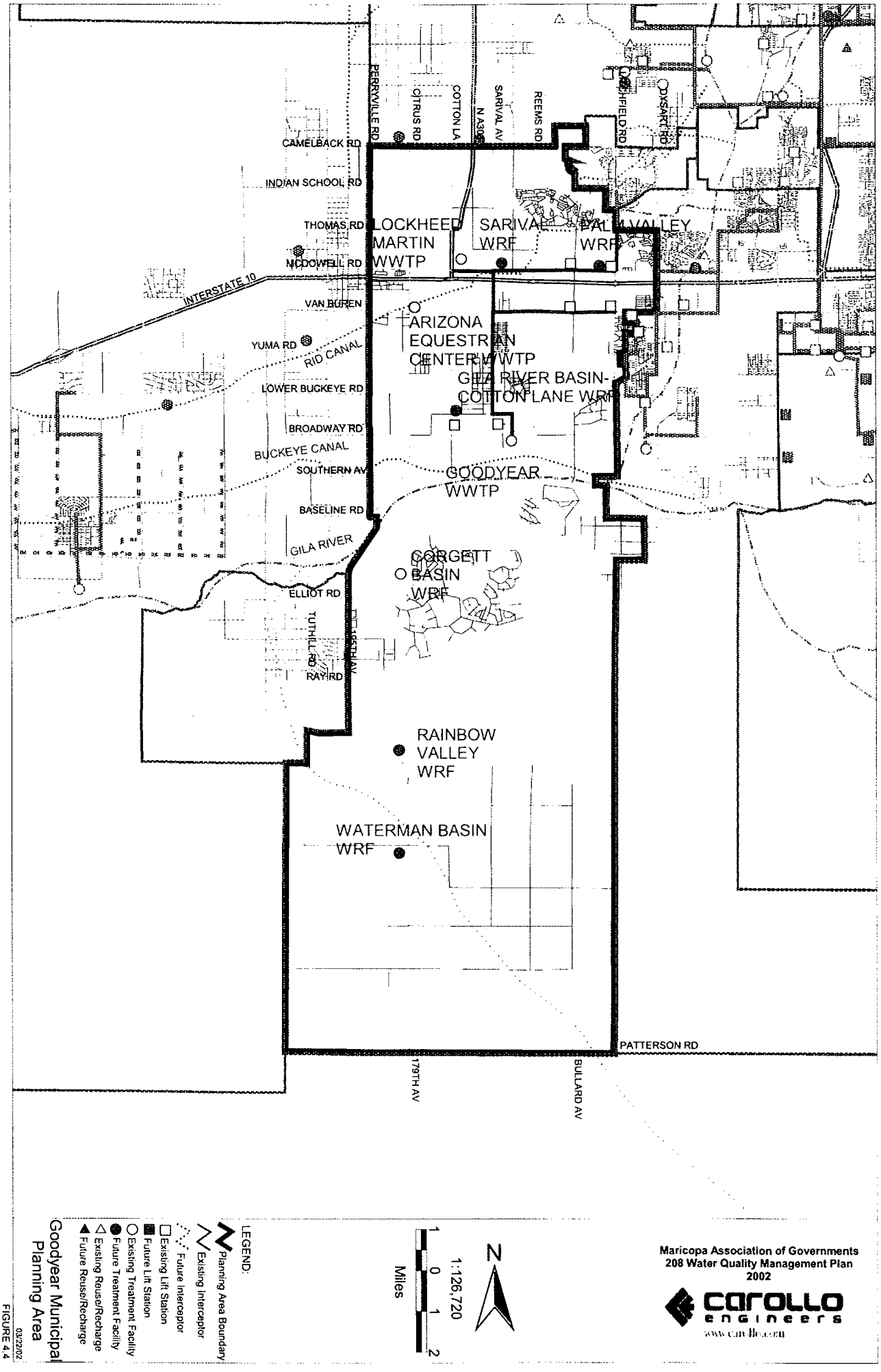

Maricopa Association of Governments
208 Water Quality Management Plan
2002
carollo engineers
GREENWAY RD
MADDELL RD
CACTUS RD
PEORIA AVE
OLIVE AV
NORTHERN AVE
GLENDALE AVE
BETHANY HOME RD
CAMELBACK RD
INDIAN SCHOOL RD
THOMAS RD
MCDOWELL RD
VAN BUREN ST
YUMA RD
LOWER BUCKEYE RD
BROADWAY RD
SOUTHERN AV
BASELINE RD
BELOAT RD
PERRYVILLE RD
203RD AV
AIRPORT RD
DEAN RD
RAINBOW RD
WATSON RD
CEMETARY RD
MILLER RD
ROOKS RD
SR 85
TURNER RD
WILSON AV
PALO VERDE RD
BRUNER RD
JOHNSON RD
BEARDSLEY CANAL
PATTON RD
CAP CANAL
SUN VALLEY PKWY
VERRADO WRF
BLUE HORIZONS WWTP
SUNDANGE WWTP
TOWN OF BUCKEYE WWTP
LEWIS PRISON COMPLEX WWTP
HASSAYAMPA RIVER
I-10
RID CANAL
BUCKEYE CANAL
339TH AV
355TH AV
GILA RIVER
KOMATKE RD
PATTERSON RD
N
1:221,760
1 0 1 2 3
Miles
LEGEND:
Planning Area Boundary
Existing Interceptor
Future Interceptor
Existing Lift Station
Future Lift Station
Existing Treatment Facility
Future Treatment Facility
Existing Reuse/Recharge
Future Reuse/Recharge
Buckeye Municipal Planning Area
03/22/02

FIGURE 4.3


PERRYVILLE RD
CITRUS RD
COTTON LA
N A306
SARIVAL AV
REEMS RD
LITCHFIELD RD
DYSART RD
CAMELBACK RD
INDIAN SCHOOL RD
THOMAS RD
MCDOWELL RD
LOCKHEED MARTIN WWTP
SARIVAL WRF
PAL VALLEY WRF
INTERSTATE 10
VAN BUREN
YUMA RD
RID CANAL
ARIZONA EQUESTRIAN CENTER WWTP
GILA RIVER BASIN-COTTON LANE WRF
LOWER BUCKEYE RD
BROADWAY RD
BUCKEYE CANAL
SOUTHERN AV
GOODYEAR WWTP
BASELINE RD
GILA RIVER
CORGETT BASIN WRF
ELLIOT RD
TUTHILL RD
RAY RD
RAINBOW VALLEY WRF
WATERMAN BASIN WRF
PATTERSON RD
179TH AV
BULLARD AV
LEGEND:
Planning Area Boundary
Existing Interceptor
Future Interceptor
Existing Lift Station
Future Lift Station
Existing Treatment Facility
Future Treatment Facility
Existing Reuse/Recharge
Future Reuse/Recharge
Miles
1
0
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2
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Maricopa Association of Governments
208 Water Quality Management Plan
2002
carollo engineers
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Goodyear Municipal Planning Area
03/22/02
FIGURE 4.4

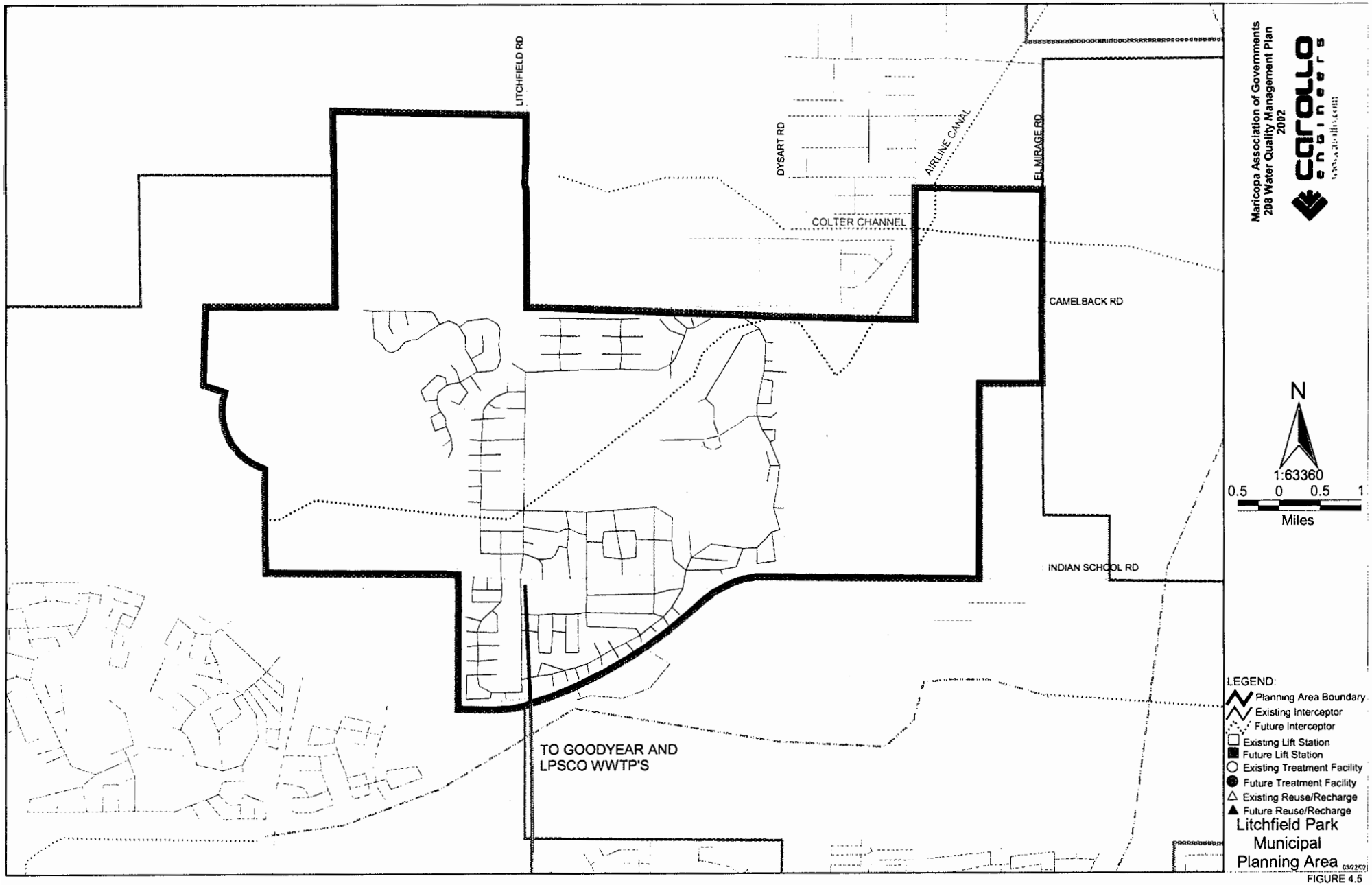
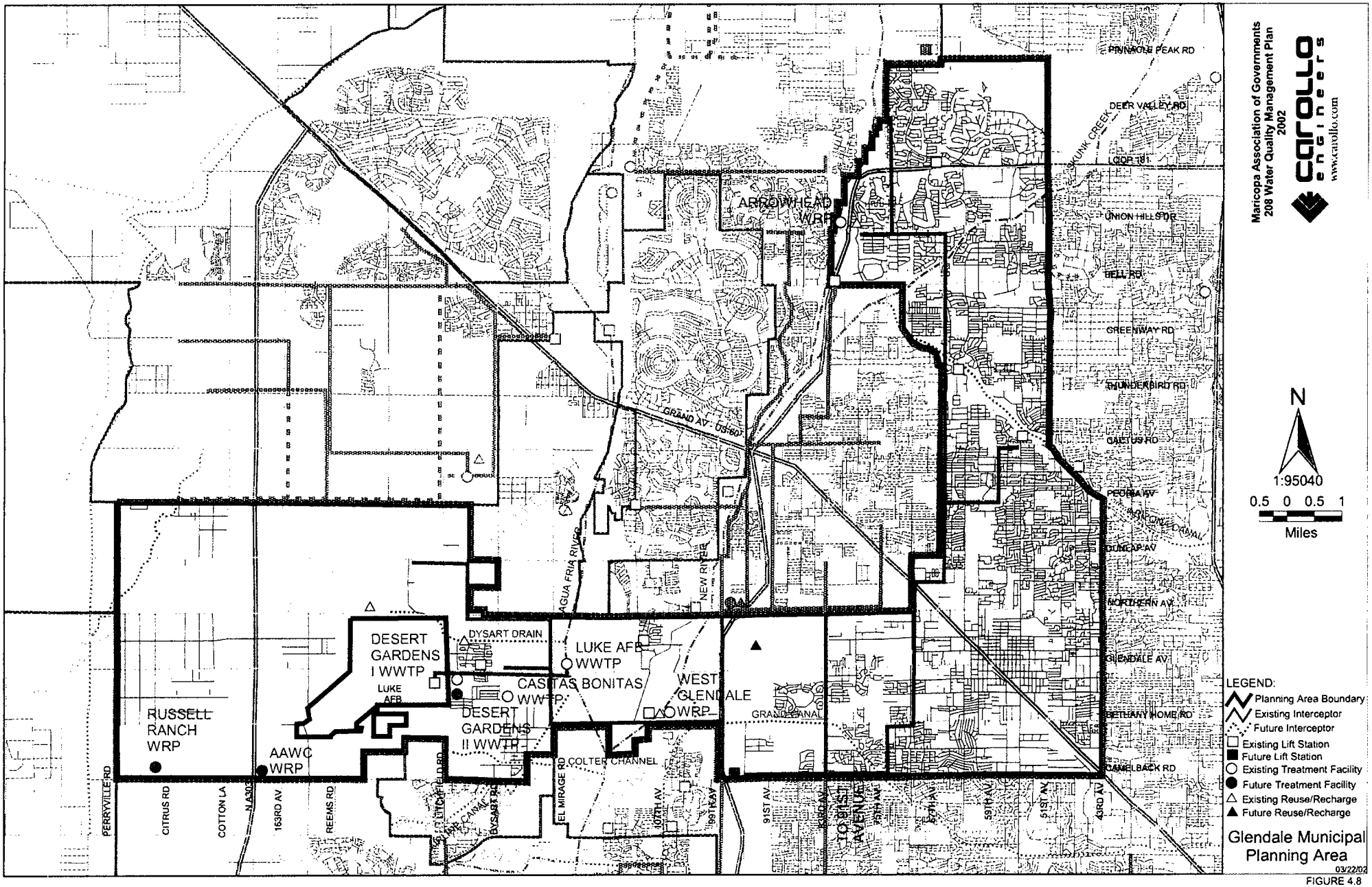

LITCHFIELD RD
DYSART RD
AIRLINE CANAL
EL MIRAGE RD
COLTER CHANNEL
CAMELBACK RD
INDIAN SCHOOL RD
TO GOODYEAR AND
LPSCO WWTP'S
Maricopa Association of Governments
208 Water Quality Management Plan
2002
carollo
engineers
N
1:63360
0.5 0 0.5 1
Miles
LEGEND:
Planning Area Boundary
Existing Interceptor
Future Interceptor
Existing Lift Station
Future Lift Station
Existing Treatment Facility
Future Treatment Facility
Existing Reuse/Recharge
Future Reuse/Recharge
Litchfield Park
Municipal
Planning Area
03/22/02

FIGURE 4.5


Maricopa Association of Governments
208 Water Quality Management Plan
2002
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PINNACLE PEAK RD
DEER VALLEY RD
SKUNK CREEK
LOOP 101
ARROWHEAD WRP
UNION HILLS DR
BELL RD
GREENWAY RD
THUNDERBIRD RD
GRAND AV - US-60
CAMELBACK RD
PEORIA AV
CACTUS AV
NORTHERN AV
GLENDALE AV
BETHANY HOME RD
CAMELBACK RD
AGUA FRIA RIVER
NEW RIVER
DYSART DRAIN
DESERT GARDENS I WWTP
LUKE AFB
LUKE AFB WWTP
CASITAS BONITAS WWTP
WEST GLENDALE WRP
DESERT GARDENS II WWTP
GRAND CANAL
RUSSELL RANCH WRP
AAWC WRP
COLTER CHANNEL
PERRYVILLE RD
CITRUS RD
COTTON LA
N A303
163RD AV
REEMS RD
LITCHFIELD RD
EL MIRAGE RD
107TH AV
99TH AV
91ST AV
83RD AV
75TH AV
67TH AV
59TH AV
51ST AV
43RD AV
TO 91ST AVENUE
N
1:95040
0.5 0 0.5 1
Miles
LEGEND:
Planning Area Boundary
Existing Interceptor
Future Interceptor
Existing Lift Station
Future Lift Station
Existing Treatment Facility
Future Treatment Facility
Existing Reuse/Recharge
Future Reuse/Recharge
Glendale Municipal Planning Area
03/22/02

FIGURE 4.8

APPENDIX C – White Tank Mountain Regional Sewer Solution

This appendix contains the conceptual plan completed in July 2004 by United Engineering Group for LPSCo. This plan forms the basis for the design of the Regional Sanitary Sewer.

White Tank Mountain Regional Sewer Solution

Conceptual Plan

Litchfield Park Service Company

Maricopa County, Arizona

July 14, 2004

Prepared By:
united engineering group
4505 E. Chandler Blvd., Suite 270
Phoenix, AZ 85048
Phone: 480.705.5372
Fax: 480.705.5376

White Tank Mountain Regional Sewer Solution
Conceptual Plan

Prepared For:

Litchfield Park Service Company

By:

United Engineering Group

July 14, 2004

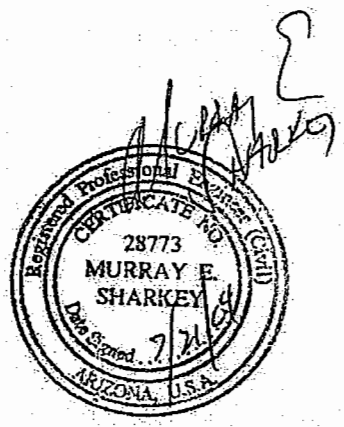

Table of Contents

Tables & Exhibits

Abbreviations & Terminology

gpd –	Gallons Per Day
MGD –	Million-Gallons Per Day (1,000,000 gpd)
gpm –	Gallons Per Minute
EDU –	Equivalent Density Unit – Equal to the design discharge of one detached single family residential dwelling unit (320 gpd) 3.2 people @ 100gpd (Avg.)
AAC Title 18 –	Arizona Administrative Code Title 18. The document containing the rules and regulations governing wastewater collection and treatment in the State of Arizona.
Average Discharge –	Anticipated mean outflow over a 24-hour period
Peak Discharge –	Anticipated flow rate for the system at peak usage times. Arizona Admistrative Code Title 18 was used to determine the peaking factor for each portion of the system. Peak Discharge is equal to the Average Discharge multiplied by the peaking factor.
LPSCO –	Litchfield Park Service Company
Lift Station (L.S.) –	Refers to the lift station at McDowell Road and Sarival Avenue used to pump wastewater from this point to the existing wastewater treatment facility near McDowell Road and Sarival Avenue.
PVWRF –	Palm Valley Water Reclamation Facility (Existing facility located north of McDowell Road between Bullard Avenue and Litchfield Road).
SWRF –	Sarival Water Reclamation Facility (Proposed facility located near the intersection of McDowell Road and Sarival Avenue).

Executive Summary

The following summarizes the results of a study completed for Litchfield Park Service Company (LPSCO) by United Engineering Group. The study shows that LPSCO can provide a feasible solution for providing wastewater treatment and transmission for the properties included in the study. This report serves to address the technical and engineering aspects of the project, whereas the previous developer-funded study completed on February 9, 2004 attempted to address the financial feasibility aspects. The study boundaries have been modified for this report and now include a smaller land area. However, the possibility exists to create a second regional study that includes the remaining areas included in the original study. The area was split due to concerns regarding the development schedules of each area; the area removed from the original study is expected to develop much later than the properties in this study. The cost structure agreed upon by the private parties involved still holds true to the previous study, while the technical aspects of the study have been adjusted. This report serves as the final outcome of the engineering study.

Due to the nature of regional planning, this study has been based on current site plans rather than existing area master plans which fail to address specific site needs. This study only seeks to show (based on existing site plans, preliminary plats and final plats) that the proposed wastewater solution will have the capability to serve all properties that would connect to the system either now or in the near future. These site plans and plats conform to the land use planning and zoning but can vary slightly from it. Since information is available regarding proposed subdivisions for subdivisions and existing properties, it is the intent of this study to show that the proposed development will be adequately served by the proposed sewer system and facilities. These systems and facilities are either in-service or planned by LPSCO. Available planned development in the area shows densities that are in conformance with, or slightly higher than, the densities being allowed by the regional plans. These plans used in this report are therefore a worse-case-scenario when compared to the densities proposed by the regional development plans.

Sewer sizes have been determined by the available density information mentioned above. Layout has been determined by both geography and need. An existing lift station at McDowell Road and Sarival Avenue will collect the outfall and pump it approximately two miles east to the existing treatment plant. Plans exist to construct new facilities once capacity meets certain triggers. Triggers for plant expansion and construction are discussed in more detail within the report.

The entire system in the study includes capacity for 9 separate properties with a proposed total of 12,288 single-family residential homes, 526 acres of commercial and industrial property and four school sites. Total flow for the system is 5.284 MGD or 3,670 gpm. A population-based peaking factor of 1.62 was utilized for this entire flow, generating a peak flow of 8.551 MGD or 5,938 gpm.

The proposed system falls within four designated 208 regional planning areas. LPSCO will be seeking approval to amend the three municipal 208 plans, permitting LPSCO to serve the area. Additional capacity has been provided for the Arizona-American Water Company 208 planning area to be absorbed into the LPSCO system, should this be deemed desirable. Amended 208 plans will improve the existing planning and allow service sooner and more economically than can be accomplished through the current plans. Because capacity is currently available, the end user will be able to begin utilizing the system immediately upon the construction of infrastructure connecting the user to the facility. Additionally, with permitting in place for additional capacity, there will be no lapse in service while additional treatment facilities are being approved and constructed. The treatment system can be completed in phases and scaled appropriately, thus offering the most economical price for each individual development through cost sharing measures. The collection system will, however, be completed in a single phase.

This proposed wastewater development plan provides a regional solution that anticipates support by the local municipalities, the Arizona Corporation Commission, Maricopa County Environmental Services. The proposed regional plan is beneficial to the environment. It eliminates the need for future septic systems or subdivision package plants and processes generated wastewater at a state-of-the-art facility. The conveyance capacity allows for the future contribution from intermediate properties.

1.0 Introduction

The following document serves as a master plan study for the proposed sewer system connecting several properties in the area directly east of the White Tank Mountains to the existing Litchfield Park Service Company sewer system. The service area for this project is shown in Exhibit A. Within the areas displayed there are several locations with existing septic systems, areas with existing wastewater master plans and the local state prison complex serviced by the City of Goodyear. All of these properties listed will neither require nor request connection to the system.

1.1 Existing Condition

This study includes the area of approximately 7.25 square miles bordered roughly by Cactus Road to the north, Indian School Road to the south, Tuthill Road to the west and Cotton Lane to the east. This is a fast growing area with significant demand for housing. Historically, development has not been able to move forward because there has been no wastewater solution for the area. Much of the problem stems from the inability of potential providers to obtain permits to build new facilities. The solution proposed in this report accomplishes this by bringing influent to an existing wastewater system which currently has unused capacity. Additional permitting is available to further expand the capacity of the system within the service area.

1.2 Proposed Development

The study will include several proposed developments that will jointly fund and have common interest in the solution. By working together, more accurate results have been attained. Additionally, quantities of scale will benefit all of those involved at the time of construction. A list of currently involved developers has been included in Section 3.0 of this report and in Table 1.

1.3 Solution Alternatives

Several alternatives have been considered by the developers involved, but for all of those involved, this opportunity offers the quickest cost effective solution while continuing to provide the desirable end result, a regional solution. Alternatives range from septic systems on 1 acre lots to individual package treatment facilities, to the construction of a new regional facility under the ownership of Arizona-American Water Company. However this proposed wastewater plan minimizes cost and complexity while offering service in the most timely and beneficial manner.

1.4 Legal Obligations

The service area of this regional study falls within three different 208 regional planning areas. This means that three jurisdictions will individually amend planning areas to allow wastewater to be transferred to the LPSCO system. While the jurisdictions appear to be cooperating, the possibility remains that opposition could result due to this issue. LPSCO will make these amendments at the time this plan is approved and legally binding agreements have been made with the properties involved. This report shows that legal obligations notwithstanding, the proposed sewer solution is feasible.

2.0 Design Criteria

The requirements and design minimums for this system have been set by the Litchfield Park Service Company. Where specific requirements were not available, the Arizona Administrative Code (AAC) Title 18 was utilized. A population of 3.2 persons per dwelling unit was used based on similar figures used by other local municipalities and providers. This exceeds the average of 2.67 persons per household in Maricopa County based on 2000 US Census data. The following is a summary of the major requirements used:

Flow Rates:

Peaking Factor:	Per Arizona Administrative Code (See Table 2)
Residential:	100 gallons/person/day
	3.2 persons/household
Commercial:	2000 gallons/acre/day
Schools:	75 gallons/student/day

Pipe:

Minimum pipe sizing:	8 inch for 120 acres or less	
	10 inch for 120 to 250 acres	
	12 inch for 250 to 640 acres	
	15 inch for all larger areas	
Minimum Slope:	8"	0.0033 ft/ft
	10"	0.0024 ft/ft
	12"	0.0019 ft/ft
	15"	0.0014 ft/ft
	18"	0.0011 ft/ft
	21"	0.00092 ft/ft
	24"	0.00077 ft/ft

Full Flow Velocity:

Minimum:	2.0 ft/sec
Maximum:	9.0 ft/sec

Manholes:

Size:	4 foot for 8 inch to 12 inch sewer-lines
	5 foot for 15 inch and larger sewer-lines
Spacing:	Every 500' for 8 inch to less than 18" sewer-lines
	Every 600' for 18 inch to less than 36" sewer-lines

3.0 Design

Study participants provided the most current demand information available for the purposes of this study. However, some ambiguity remains as to the exact lot count that will be included in the final design. Two areas in particular have been included as part of the study that may not utilize the system. It was decided, for the sake of completeness, that these areas be included; the potential flows from these properties are included in the pipe design. The first of these areas is Russell Ranch Phases 1-5. This area is currently in the Arizona-American Water Company 208 planning area and has an on-site treatment facility which is in partial operation. It may prove to be economically viable to directly discharge into the system proposed in this report, and the property has thus been included should this be the case. The second piece is that portion of Zanjero Trails between Cactus Road and Peoria Avenue. This portion was given the option of discharging into the City of Surprise wastewater system. Again, because multiple possible sewer solutions exist, the conservative approach of including these flows into the capacity design, was taken.

The table below provides a list of contributions to each of the nodes shown in Exhibit A provided at the end of this report. Table 1, also provided at the end of this report, sums the result to provide line sizing based on the design criteria provided in Section 2 of this report.

Contributions to the system are calculated based on dwelling unit counts, commercial/industrial acreage, and school population counts. For the sake of comparison, EDUs (Equivalent Dwelling Units) can be utilized. One EDU is the equivalent discharge of one single family home per day, or 320 gallons per day. For comparisons sake, one acre of commercial property generates 6.25 EDU of discharge and each 1000 student school site generates approximately 234 EDU of discharge. Similarly, equivalent population is calculated by dividing the discharge in gallons per day by 100. Therefore, for the purposes of calculating the peaking factor, there is a population of 3.2 per EDU, 20 per acre of commercial, and 750 per 1000 student school site.

The following is a summarized list of the developments included in the Study Group (See Table 1 for a summative list which is used to determine line sizing); A manhole has been assigned to each property (or portion thereof) and appears next to that property. The manhole shows the approximate location of discharge. This table is shown on the following page:

#	Development Name	MH	Residential Units (DU)	Com./Ind. Acreage	School Site (Students)
1	Maracay Homes	1	859	5	
2	Jackrabbit Estates	1	364		
3	Moseley	1	200	24	
4	Zanjero Trails	2	8,231	72	3,000
5	Savannah	3	319		
6	Russell Ranch Phase 6	3	110	10	
7	Russell Ranch Phases 1-5	4	425	5	
8	Badley Center	4		20	
9	Hancock Communities	4	1,280	20	1,000
10	Beazer Homes/Abel Property	5	500	370	
		TOTALS:	**12,288**	**526**	**4,000**

4.0 Existing Facilities

Litchfield Park Service Company (LPSCO) currently provides sewer existing service to the portions of the City of Goodyear, Litchfield Park and unincorporated areas of Maricopa County. The LPSCO service area is predominately made up of master planned communities such as Palm Valley, Pebble Creek and Litchfield Greens communities. The Palm Valley Water Reclamation Facility (PVWRF) located at 14222 W. McDowell Road was constructed and placed into service in February 2001. LPSCO is currently preparing an Aquifer Protection Permit amendment for the expansion of PVWRF from 4.1 to 8.2 MGD. The estimated 1,423 planned residential units of the Palm Valley Phase-V development will produce an average daily sewage flow of 513,360 gallons per day (based on 320 gallons per day per dwelling unit). Utilizing a peaking factor of 2.02 derived from the Harmon equation, the peak day flow for this development is estimated to be 1,036,987 gallons per day. This facility was designed to serve all residential and commercial development from the McDowell Road to the south, Camelback Road to the north from Bullard to the west, and Dysart Road to the east. This facility will provide service to the new area.

The Sarival Lift Station is to provide interim pumping capacity to the PVWRF from the northwest service area until such time that flows increased to a level that would support startup and continuous operation of a 4.2- million gallon per day (MGD) Sarival Water Reclamation Facility (SWRF). The initial design and 1st phase construction of the Sarival Lift Station is designed to provide the following pumping capacity:

- Average Daily Flow - 2.0 MGD
- Peak Day Flow - 4.2 MGD
- Peak Hour Flow - 6.5 MGD

The facility construction includes the following features:

- One 30,000 gallon sub-grade concrete wet well
- Three (3) - 1500 GPM submersible raw sewage pumps and ancillary control equipment
- One (1) - 125 KVA – Standby Power Generator
- One (1) – Wet Oxidation Odor Control Scrubber
- One (1) – 24-inch bypass sewer to the City of Goodyear
- One (1) - 36- inch RCP inlet piping.
- One (1) – 16-inch DI discharge piping (to PVWRF)

The initial construction phase of the Sarival Lift station will provide sewer service for up to 6,250 residential units by diverting up to 2.0 MGD average daily flow to the PVWRF through a newly constructed 16-inch ductile iron force main. Once the trigger flow rate of 1.2 MGD is reached at this facility, construction will begin on the first phase (4.1 MGD) SWRF.

Further details on the proposed treatment facilities are included in Section 5 of this report.

5.0 Proposed Facilities

Exhibit A shows the proposed system layouts for the proposed collection system. The proposed system is discussed in more detail below.

5.1 Collection System

Pipe layout was determined based on the geographic situation in the area, with slopes heading predominantly southeast. The chosen layout was based on the goal of serving the most properties possible using the most optimized route for the sewer-line.

The construction of this sewer system should encounter few unique situations which will require special treatment. There are, however, two unique situations that should be noted. These include a crossing under the Beardsley Canal at Camelback Road and a possible crossing within the loop 303 corridor. Sufficient slope exists at both locations to provide flexibility in the depth of the sewer system. Additional costs and contingency have been allocated to provide for the additional expenses incurred by lowering the sewer and boring beneath the canal or road deck.

Numerous scenarios and pipe layouts were considered prior to the decision to recommend the systems shown in this report. The primary intent of the system is to provide a regional solution to the area in a manner consistent to the needs of the area. Serious consideration was given to the timing of development and the fair distribution of costs across the entire study group. Not only were ultimate build-out costs considered, but the up front costs were weighed in the layout decision.

5.2 Treatment Facilities

The proposed LPSCO facility, known as the Sarival Water Reclamation Facility (SWRF) located south of Sarival Road on McDowell Road, was planned to treat all residential and commercial sewer flows west of Bullard Avenue, between McDowell Road to the south and Bethany Road to the north. Surrounding development projects, planned for 2008, dictated the construction schedule of this facility. However, the recent sale of development properties stimulated development directly related to this facility, moving up the schedule for sewage treatment for development west of Bullard Road much sooner than originally planned.

Originally, the sewer flows from Palm Valley Phase-V were planned to flow west of Bullard Avenue to the proposed SWRF. However, the expedited development specific to sections 18 and 19 of the current service area has been redirected to the PVWRF. This additional flow will move up the schedule for the planned expansion of the PVWRF from 2008 to 2007. LPSCO is currently preparing an Aquifer Protection Permit amendment for the expansion of PVWRF from 4.1 to 8.2 MGD. The estimated 1,423 planned residential units of the Palm Valley Phase –V development will produce an average daily sewage flow is 513,360 gallons per day (based on 320 gallons per day per dwelling unit). Utilizing a peaking factor of 2.02 derived from the Harmon equation, the peak day flow for this development is estimated to be 1,036,987 gallons per day.

The original design concept of the Sarival Lift Station is to provide interim pumping capacity to the PVWRF from the northwest service area until such time that flows increased to a level that would support startup and continuous operation of a 4.2- million gallon per day (MGD) SWRF. It is estimated that the flow rate triggering the construction of the new facility would be 1.2 MGD average daily flow.

Phase II expansion of the SWRF will increase the treatment capacity by 4.1 MGD for an ultimate build out capacity of 8.2 MGD. Once the trigger flow rate of 3.4 MGD is reached (80% of design flow), design and construction will begin on the second phase, 4.1 MGD SWRF plant expansion. Once the flow rate increases to an average daily flow of 3.4 MGD, the Sarival Lift Station will be modified by replacing two (2) 1500 GPM pumps with two (2) 3000 GPM pumps and adding one (1) additional – 3,000 GPM pump, which will complete the full build out expansion of the Sarival Lift Station providing the following ultimate pumping capacity:

- Average Daily Flow - 8.1 MGD
- Peak Day Flow - 13.0 MGD
- Peak Hour Flow - 17.3 MGD

This will complete the full build-out expansion of the Sarival Lift Station and treatment plant providing sewer capacity for up to 25,300 residential units.

Summarizing the above, the effective project triggers are as follows (Note that Trigger 1 has already occurred):

- Trigger 1 – Palm Valley Phase-V triggers construction of the 2.0 MGD Sarival Lift Station, diverting flow to PVWRF until such time that sustained flows of 1.2 MGD warrant construction of the SWRF (currently being constructed – will be completed November 2004).
- Trigger 2 – PVWRF flows reach 3.4 MGD (80% of design flow) triggering design study and construction of plant expansion from 4.1 MGD to 8.2 MGD.
- Trigger 3 – Sarival Lift Station flows reach 1.2 MGD, triggering design study determining construction phasing of the SWRF.
- Trigger 4 – SWRF Phase I construction is completed as flows at the Sarival Lift Station increase from 1.2 MGD TO 2.0 MGD.
- Trigger 5 – Sarival Lift Station flows reach 2.0 MGD, triggering the replacement of one (1) 1500 GPM pump with one (1) 3000 GPM pump.
- Trigger 6 – Sarival Lift Station flows reach 3.4 MGD, triggering construction of the 2nd phase of the SWRF expanding treatment capacity from 4.1 to 8.2 MGD.
- Trigger 7 – Sarival Lift Station flows reach 3.4 MGD, triggering the replacement of two (2) 1500 GPM pump with two (2) 3000 GPM pump.
- Trigger 8 – Sarival Lift Station flows exceed 3.4 MGD, triggering the addition of one (1) 3000 GPM pump.

As previously mentioned, the Sarival Lift Station was initially constructed to provide sewage collection and pumping for all development west of Bullard Avenue. Due to the diversion of the planned flows of the Palm Valley Phase-V development (all development in sections 18 & 19) to the PVWRF, the Sarival Lift Station will immediately realize an additional 513,360 gallons average day flow (1423- residential units) of pumping capacity. Therefore, LPSCO currently possesses the necessary capacity to provide water and sewer service to the proposed project. Operation and maintenance of the sewage system will be in accordance with LPSCO procedures. LPSCO will provide the services in accordance with the current regulations of the Arizona Corporation Commission, the Arizona Department of Water Resources, MCESD, and any other regulatory agencies having jurisdiction.

6.0 Results

This report assumes right-of way will be available along the proposed alignments, and that there exist no unique situations not already mentioned. Efforts have been made to verify the availability of such right-of-way, but are not guaranteed. Changes in the route will result in increased costs which should be recognized at the time of development. Also it has been assumed that there will be no issues obtaining the necessary 208 designation. Notwithstanding these situations, the plan in this report can be implemented as proposed.

7.0 Timeline

Engineering and construction of the master sewer system is expected to begin in 2004, with connections available by 2005. The schedule for the system will be very aggressive in order to best suit all of those involved.

8.0 Cost/Benefit

By sharing system components, developers can realize great savings in time and money. This system offers better system reliability than other proposed treatment solutions by reducing the necessity for pumping and number of treatment facilities. Additionally, the environmental impact of this system will be much less than the use of septic systems. A regional solution will also reduce the desirability of a septic system solution or a subdivision package plant for future developments in the general area but not involved in this study. Because the properties not included account for a small area, as seen by Exhibit A, they can be easily added at a later date. By using conservative flow rates, additional capacity will likely be realized once a historic flow has been established.

9.0 Conclusion

The wastewater collection and disposal system has been designed as a regional solution for the anticipated end users. Focus has been placed on maximizing the benefit to the region. The proposed system will accomplish this task while providing a sufficient buffer of additional capacity for unforeseen modifications to the system.

The proposed system falls within three designated 208 regional planning areas. LPSCO will be seeking approval to amend the three 208 plans, permitting LPSCO to serve the area. Amended 208 plans will improve the existing planning and allow service sooner and more economically than can be accomplished through the current plans. Because capacity is currently available, the end user will be able to begin utilizing the system immediately upon the construction of infrastructure connecting the users to the facility. Additionally, with permitting in place for additional capacity, there will be no lapse in service while additional facilities are being approved. The treatment system can be completed in phases and scaled appropriately, thus offering the most economical price through cost sharing measures. This flexibility is critical to everyone involved, and is not currently offered by any other proposed solutions.

This solution provides a regional solution which should be supported by the local municipalities, the Arizona Corporation Commission, Maricopa County Environmental Services. The proposed regional plan is also beneficial to the environment by eliminating the need for future septic systems or subdivision package plants; instead this wastewater can be processed at a state-of-the-art facility and the reclaimed water can be used to benefit the community.

References

Manuals

Arizona Secretary of State, *"Arizona Administrative Code Title 18 Chapter 9 – Department of Environmental Quality Water Pollution Control,"* Published by The State of Arizona, effective January 1, 2001.

City of Phoenix, *"City of Phoenix Design Standards Manual for Water, Wastewater, Reclaimed Water Systems,"* Published by The City of Phoenix, effective April 1994.

City of Phoenix, *"City of Phoenix Supplement to Maricopa Association of Governments Uniform Standard Specifications,"* Published by The City of Phoenix, effective January 1, 2002.

ADEQ Bullitin

Computer Programs

AutoDesk Land Desktop, version 3, copyright 1982-2001
AutoDesk, Incorporated
111 McInnis Parkway
San Rafael, CA 94903

SewerCAD, version 5.5, copyright 1999-2003.
Haested Methods, Incorporated
37 Brookside Road
Waterbury, CT 06708 USA

Table 1: Wastewater Flow Summary for White Tanks Regional Sewer Solution (LPSCO)

Flows in Gallons Per Day

	Contributing Flows			
MH #	Dwelling Units	Commercial/ Industrial Acres	School Site	Base Flow at Manhole
1	1423	29	0	513,360
2	8231	72	3	3,002,920
3	429	10	0	157,280
4	425	25	0	186,000
5	1280	20	1	524,600
6	500	370	0	900,000
7	0	0	0	-
8	0	0	0	-

						Pipe Data			
Pipe #	Contributing Manholes	Total Flow	Equivalent Population	Peaking Factor	Peak Flow	Pipe Size	Pipe Slope	Maximum Pipe Flow	Excess Capacity
1	1	513,360	5,134	1.97	1,013,179	12	0.74%	1,986,015	972,837
2	1-2	3,516,280	35,163	1.67	5,861,427	21	0.53%	7,473,189	1,611,763
3	1-3	3,673,560	36,736	1.66	6,103,520	24	0.36%	8,747,308	2,643,788
4	1-4	3,859,560	38,596	1.66	6,388,995	24	0.48%	10,088,490	3,699,495
5	1-5	4,384,160	43,842	1.64	7,189,754	24	0.35%	8,689,263	1,499,509
6	1-6	5,284,160	52,842	1.62	8,550,535	24	0.42%	9,446,030	895,495
7	1-7	5,284,160	52,842	1.62	8,550,535	24	0.50%	10,379,250	1,828,715
8	1-8	5,284,160	52,842	1.62	8,550,535	30	0.32%	14,943,977	6,393,443

Table 2: Peaking Factor Table*

Upstream Population	Peaking Factor
0	4.00
100	3.62
200	3.14
300	2.90
400	2.74
500	2.64
600	2.56
700	2.50
800	2.46
900	2.42
1000	2.38
1001 to 10,000	$PF = (6.330 \times p^{-0.231}) + 1.094$
10,001 to 100,000	$PF = (6.177 \times p^{-0.233}) + 1.128$
More than 100,000	$PF = (4.500 \times p^{-0.174}) + 0.945$

PF = Peaking Factor

p = Upstream Population = Flow (gpd)/100

* Taken from the Arizone Administrative Code (AAC) Title 18

Table 3: Pipe Flow Table

Pipe Size	Pipe Slope (Minimum)	Pipe Flow at Minimum Slope (gpd)
8"	0.33%	445,959
10"	0.24%	691,559
12"	0.19%	1,001,791
15"	0.14%	1,564,087
18"	0.11%	2,249,183
21"	0.092%	3,108,784
24"	0.077%	4,058,870
30"	0.057%	6,327,442
36"	0.045%	9,145,384

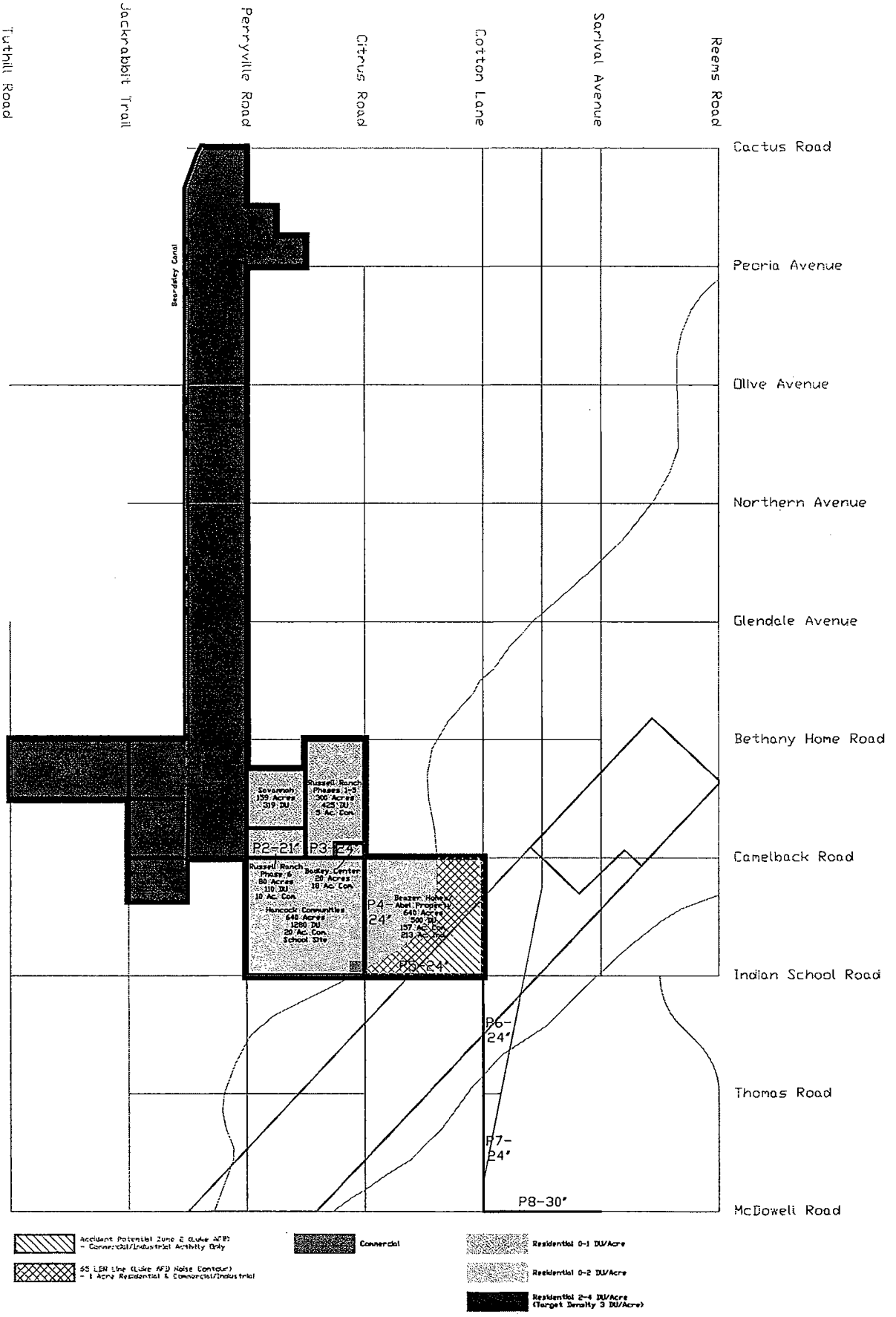

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Exhibit A

APPENDIX D – Aquifer Protection Permit Application

This appendix contains the application for Aquifer Protection Permit (APP) submitted by LPSCo and relating to their existing and planned treatment facilities. The Draft APP amendment for the Palm Valley Water Reclamation Facility is currently under review by the Arizona Department of Environmental Quality. The Aquifer Protection Permit File number (APP) is #100310, Place ID #1014, and Letter to File (LTF) #34136.

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

Jane Dee Hull
Governor

3033 North Central Avenue • Phoenix, Arizona 85012-2809
(602) 207-2300 • www.adeq.state.az.us

Jacqueline E. Schafer
Director

October 11, 2001

David Ellis, General Manager
Litchfield Park Service Company
111 W. Wigwam Blvd.
Litchfield Park. Arizona 85340

Re: Litchfield Park Service Company-Palm Valley Reclamation Facility
Aquifer Protection Permit Number 100310

Dear Mr. Ellis:

Enclosed is a signed Aquifer Protection Permit with Executive Summary for the above referenced facility. The permit conditions shall apply from July 23, 2002 which is the date of the Water Quality Division Director's signature, and shall be valid for the life of the facility. Thank you for your cooperation in protecting the water quality of the State of Arizona.

If you have any questions regarding this permit or the facility, please feel free to contact me a 207-4503.

Sincerely,

Lee Sobchak
Water Permits Section
Water Quality Division

cc: Reza Azizi, Supervisor, Water Quality Compliance Unit
Don Shroyer, Supervisor, Water Quality Data Unit
Lynne Dekarske, Administrative Assistant, Water Permits Section
Asif Majeed, Supervisor, Wastewater, Recharge, & Reuse Unit (letter only)
Chuck Ohr, Water Quality Enforcement Unit

MWR01:0734

Northern Regional Office
1515 East Cedar Avenue • Suite F • Flagstaff, AZ 86004
(520) 779-0313

Southern Regional Office
400 West Congress Street • Suite 433 • Tucson, AZ 85701
(520) 628-6733

EXECUTIVE SUMMARY
AQUIFER PROTECTION PERMIT NO. 100310

Facility Name:

Litchfield Park Service Company-Palm Valley Reclamation Facility

Facility Location:

The facility will be located at 14222 McDowell Road, Goodyear, Maricopa County, Arizona, over groundwater of the Phoenix Active Management Area (AMA) in Township 02N, Range 01W, Section 33, Gila and Salt River Base Line and Meridian.

Regulatory Status

This is a new facility. The approval to construct for the facility will be issued by the Maricopa County Environmental Services Department. The Aquifer Protection Permit (APP) application was submitted on December 29, 2000.

Facility Description:

The permittee will operate a new wastewater treatment plant (WWTP) using Sequential Batch Reactor (SBR) technology with denitrification, tertiary filtration and ultra violet disinfection. The WWTP shall treat 4.1 million gallons per day of domestic sewage with expansion in the future to 8.2 at which time the permittee will apply for a permit amendment. The wastewater shall be transported for reuse according to terms and conditions of a reuse permit issued by the Department, or discharged to the Roosevelt Irrigation District (RID) canal. There shall be no sludge drying beds on site. Sludge shall be aerobically digested and dewatered onsite by a centrifuge process. The dewatered sludge shall be hauled to a landfill that is approved to accept these wastes. There will be effluent monitoring for Aquifer Water Standards inorganic chemicals and A+ reclaimed water standards.

Best Available Demonstrated Control Technology (BADCT):

The facility will denitrify the effluent to below 10.0 mg/l for total nitrogen and will disinfect using ultra violet technology. The facility will transport wastewater to a reuse facility and to the RID canal. This treatment plant technology, and water conservation through reuse is considered to meet BADCT requirements.

Monitoring Requirements:

Effluent will be monitored at the sampling at the discharge line. Monitoring will include total nitrogen, fecal coliform, enteric virus, turbidity and metals.

Compliance with Aquifer Water Quality Standards (AWQS):

The facility produces tertiary treated effluent with nitrogen removal. Due to the materials used for construction of the facility, the depth to groundwater greater than 130 feet and the effluent being used for reuse, standards will be met at the point of compliance

Point of Compliance:

The point of compliance is located northwest of the WRF as shown in Part II.B.2.a of the permit..

Storm/Surface Water Considerations:

There are no storm/surface water considerations required for this facility

Zoning Requirements:

The facility satisfies the necessary zoning requirements.

Financial Capability:

The permittee has provided the financial information required pursuant to A.A.C. R18-9-A203

Technical Capability:

The permittee has contracted work for the design and construction of the facility to a company that is experienced in WWTP design and construction. The WWTP will be operated by a certified wastewater facility operator.

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STATE OF ARIZONA

AQUIFER PROTECTION PERMIT NO. P-100310

PART I. AUTHORIZATION TO DISCHARGE POLLUTANTS IN A MANNER SUCH THAT CURRENT AND REASONABLY FORESEEABLE FUTURE USES OF THE AQUIFER ARE PROTECTED

In compliance with the provisions of Arizona Revised Statutes (A.R.S.) Title 49, Chapter 2, Articles 1, 2 and 3; Arizona Administrative Code (A.A.C.) Title 18, Chapter 9, Articles 1&2; A.A.C. Title 18, Chapter 11, Article 4; and conditions set forth in this permit:

Facility Name: Palm Valley Water Reclamation Facility

Owner & Operator:

Litchfield Park Service Company
111 W. Wigwam Blvd., Suite B
Litchfield Park, Arizona 85340

is authorized to operate the Palm Valley Water Reclamation Facility at 14222 McDowell Road, in Goodyear, Maricopa County, Arizona, over the groundwater of the Phoenix Active Management Area (AMA) basin in Township 02 N, Range 01W, Section 33 NW¼ SE¼ SW¼- Gila and Salt River Base Line and Meridian, at:

Latitude	33° 27' 55"	North
Longitude	112° 21' 56"	West

This permit shall become effective on the date of the Division Director's signature and shall be valid for the life of the facility (operational, closure, and post-closure periods) provided that the facility is constructed, operated, and maintained pursuant to all the conditions of this permit according to the design and operational information documented or referenced in PARTS I, II, III, IV, V, and VI of this Permit, and such that Aquifer Water Quality Standards are not violated.

Karen L. Smith, Director
Water Quality Division
Arizona Department of Environmental Quality

Signed this 23RD day of July, 2001

PART II. SPECIFIC CONDITIONS

A. Discharge Limitations

1. The permittee is authorized to operate an wastewater treatment plant (WWTP) using Sequencial Batch Reactor (SBR) technology with denitrification tertiary filtration and ultra violet disinfection. The WWTP shall treat 4.1 million gallons per day of domestic sewage. The wastewater shall be transported for reused according to terms and conditions of a reuse permit issued by the Department, or discharged to the Roosevelt Irrigation District (RID) canal. There shall be no sludge drying beds on site. Sludge shall be aerobically digested and dewatered onsite by a centrifuge process. The dewatered sludge shall be hauled to a landfill that is approved to accept these wastes. The WWTP construction shall conform to the final design report submitted with the Aquifer Protection Permit for this facilty

2. The materials authorized to be disposed of through the wastewater treatment plant are typical sewage and shall not include motor oil, gasoline, paints, varnishes, hazardous wastes, solvents, pesticides, fertilizers or other materials not generally associated with toilet flushing, food preparation, laundry facilities and personal hygiene.

3. Specific discharge limitations are specified in PART IV, TABLE I.

4 The permittee shall adhere to all requirements of the Operations and Maintenance (O & M) manual and any revision thereof to the O & M manual.

5. This facility is classified as generating class A+ reclaimed water according to Arizona Administrative Code R18-11-303.

B. Monitoring Requirements

1. Discharge Monitoring

Discharge from the WWTP shall be monitored according to PART IV, TABLE I.

Discharge monitoring shall be performed at:

Identification	Latitude	Longitude
after disinfection at a sample port in the discharge line	33° 27' 55" N	112° 21' 56" W

2. Groundwater Monitoring

a. Point(s) of Compliance

The point of compliance (POC) for this facility is designated at the following location:

Identification	Latitude	Longitude
Northwest corner of the WWTP	33° 27' 54"	112° 21' 54"

The Director shall designate additional point(s) of compliance if information on groundwater gradients indicates the need.

b. Monitoring Well Locations

Monitor wells are not required.

c. Ambient Groundwater Quality Monitoring

Not required.

d. Compliance Monitoring

Groundwater monitoring may be required as defined in Contingency Plan Requirements section II.C.

3. Operational Monitoring

a. Pre-operational QA/QC Requirements

Not required

b. Facility Maintenance Inspection

(1) The pollution control structures shall be inspected for the items listed in PART IV, TABLE II. A log of these inspections shall be kept at the facility for ten (10) years from the date of each inspection, available for review by ADEQ personnel.

(2) If any damage of the treatment plant structures is identified during inspection, proper repair procedures shall be performed. All repair procedures and material(s) used shall be documented on the Self-Monitoring Report Form (SMRF) and submitted quarterly to the ADEQ Water Quality Compliance.

c. Fissure Monitoring

Not Required.

4. Sampling Protocols

a. Discharge Monitoring System

Sample collection, preservation, and holding times shall be consistent with the 1991 ADEQ Quality Assurance Project Plan or procedures described in EPA 40 CFR PART 136.

b. Groundwater Monitoring

Groundwater monitoring is not required in this permit unless required in a contingency plan. If groundwater monitoring is required per Contingency Plan in Part II.C., then the permittee shall follow the conditions as stated below.

(1) Sample collection, preservation, and holding times shall be consistent with the most recent ADEQ Quality Assurance Project Plan or procedures described in EPA 40 CFR PART 136.

(2) Static water levels shall be measured and recorded prior to sampling. Wells shall be purged of at least three borehole volumes (as calculated using the static water level) or until indicator parameters (pH, temperature, conductivity) are stable, whichever represents the greater volume. If evacuation results in the well going dry, the well should be allowed to recover to 80% of the original borehole volume, or for 24 hours, whichever is shorter, prior to sampling. If after 24 hours there is not sufficient water for sampling, the well will be recorded as dry for the monitoring event. An explanation for reduced pumping volumes, a record of the volume pumped, and modified sampling procedures shall be reported on the SMRF.

5. Installation and Maintenance of Monitoring Equipment

a. Discharge Monitoring Equipment

The permittee shall provide monitoring or sampling access, ports, or devices at the facility for all monitoring required in this permit.

b. Groundwater Monitoring Equipment

Any groundwater monitoring wells, if required by this permit or

contingency plan, shall be installed and maintained according to plans approved by ADEQ Water Permits Section so that proper groundwater samples can be collected. Should additional groundwater wells be determined necessary, the construction details shall be submitted to ADEQ Water Permits Section for approval.

6. Monitoring Records

The following information associated with each sample, inspection or measurement and the name of each individual who performed the sampling or measurement should be included in the monitoring records;

a. Date, time and exact place of sampling, inspection, or measurement and the name of each individual who performed the sampling or measurement.

b. Procedures used to collect the sample or make the measurement.

c. Date on which sample analysis was completed.

d. Name of each individual and laboratory who performed the analysis.

e. Analytical techniques or methods used to perform the sampling and analysis; laboratory detection limit for each test method performed; analytical variance for each parameter analyzed.

f. Chain of custody records.

g. Any field notes relating to the information described in subparagraphs a. through f above.

C. Contingency and Emergency Response Plan Requirements

The permittee shall maintain at least one copy of a contingency plan(s) at the location where day-to-day decisions regarding the operation of the facility are made. The permittee shall advise anyone responsible for the operation of the facility of the location of copies of all contingency and emergency response plans.

The following requirements shall constitute the contingency plan for this facility.

1. General AL/DL Contingencies

a. Alert Level (AL) or Discharge Limit (DL) Exceedance

(1) The permittee shall notify the Department at the address specified in PART II.H.1 within five days of becoming aware of the exceedance of an Alert Level or Discharge Limit.

(2) Verification sampling shall be conducted within five days of becoming aware that Alert Level or Discharge Limit has been exceeded.

(3) Within five days of receiving the results of verification sampling from the laboratory, the permittee shall notify the Department of the results, at the address indicated in PART II.H.1, regardless of whether the results are positive or negative.

(a) If the results of verification sampling indicate that an AL or DL has not been exceeded, the permittee shall assume that no exceedance has occurred and, unless the permittee is otherwise instructed by the Department, no further action is required until the next scheduled monitoring round.

(b) If the results verify that an AL or DL has been exceeded, the permittee shall, within 30 days of receiving the laboratory results verifying that an AL or DL has been exceeded, submit to ADEQ Water Quality Compliance, either (i) or (ii) of the following:

(i) a written report which includes the documentation specified in PART II.H.3.b. Upon approval by the Department, The permittee shall initiate the actions necessary to mitigate the impacts of the exceedance. At a minimum, the plan shall include provisions for more frequent sampling until constituent concentration is below the AL or DL for two consecutive samples. The plan shall indicate if any additional parameters are to be tested.

(ii) a demonstration that the AL or DL exceedance resulted from error(s) in sampling, analysis, or statistical evaluation.

(4) In the event of an AL or DL exceedance, the Department may require additional monitoring, studies, or remedial activities beyond those specified in this permit. In addition, if the permittee submits a demonstration that the AL or DL exceedance was due to error(s) in sampling, analysis, or statistical evaluation, and this demonstration is not accepted by the ADEQ, the Department may require that the permittee submit the documentation included in PART II.H.3.b.

(5) In the event that an AL or DL is exceeded for four consecutive months, the Director may require that monitor wells be installed at the point of compliance and upgradient of the facility. At that time, a groundwater monitoring plan including a parameter list, sampling frequencies, and protocols will be added to this permit based on AL or DL exceedance data.

2. Accidental Discharge/Spills

The permittee shall correct any failure that results in the violation of permit conditions and take the following action:

a Within 30 days of a spill that might cause the exceedance of an Aquifer Quality Limit (AQL) or might cause imminent and substantial endangerment to public health or the environment, the permittee shall submit a written report that includes the documentation required in PART II.H.3.b to ADEQ's Water Quality Compliance. Upon review of the above required report, the Department may require additional monitoring, sampling and/or actions.

b In the event of an accidental spill or unauthorized discharge of suspected hazardous or toxic materials on the facility site, the related area shall be promptly isolated and attempts to identify the material shall be made. Information on persons that may have been exposed to the material will be recorded. A qualified contractor shall remove and dispose of the material according to applicable federal, state and city regulations.

3. Drainage Failure

If a drainage structure such as a ditch or diversion berm fails or is blocked, prompt action shall be taken immediately to repair the temporary structures with readily available materials so as to minimize impacts on the facility. The temporary repairs shall be replaced by permanent repairs as soon as conditions allow. The repairs or permanent replacements of any temporary structure shall be designed to prevent future failures.

4. Emergency Response

a The permittee shall provide for emergency response on a 24-hour basis in the event that a condition arises which results in imminent and substantial endangerment to public health or the environment. The plan shall be kept at the facility and provide for the following:

(1) designation of an emergency response coordinator who shall notify ADEQ's Water Quality Compliance and activate the necessary contingency plan in the event of an emergency;

(2) a general description of the procedures, personnel and equipment to be used to assure appropriate mitigation of unauthorized discharges; and

(3) a list of names, addresses and telephone numbers of persons to be contacted in the event of an emergency.

b In the event that emergency response measures are taken or those portions of the contingency plan that address an imminent and substantial endangerment are activated, the emergency response coordinator shall notify ADEQ's Water Quality Compliance immediately.

D. Temporary Cessation

The permittee shall notify ADEQ Water Quality Compliance in writing before temporary cessation of any operation at the facility. Notification of the temporary cessation does not relieve the permittee of any permit requirements unless otherwise specified in this permit.

Accompanying the notification shall be a description of any measures to be taken to maintain discharge control systems such that discharge is minimized to the maximum extent practicable during temporary cessation.

E. Closure

1. The permittee shall notify ADEQ Water Permits Section of intent to cease, without intent to resume, an activity for which the facility was designed or operated prior to ceasing. Within 90 days following notification, the permittee shall submit for approval, to ADEQ Water Quality Compliance, a closure plan which eliminates, to the greatest extent practicable, any reasonable probability of further discharge from the facility and of exceeding Aquifer Water Quality Standards at the applicable point of compliance. This plan shall be in addition to any approved closure method referenced in the facility file. The plan shall describe the following details:

a. The approximate quantities and the chemical, biological, and physical characteristics of the materials to be removed from the facility;

b. the destination of the materials to be removed from the facility and an indication that placement of the materials at that destination is approved;

c. the approximate quantities and the chemical, biological, and physical characteristics of the materials that will remain at the facility;

d. the methods to be used to treat any materials remaining at the facility;

e. the methods to be used to control the discharge of pollutants from the facility;

f. any limitations on future land or water uses created as a result of the facility's operations or closure activities;

g. the methods to be used to secure the facility;

h. an estimate of the cost of closure; and

i. a schedule for implementation of the closure plan and the submission of a post-closure plan.

2. Upon completion of closure activities, the permittee shall give written notice to ADEQ Water Quality Compliance indicating that the approved closure plan has been implemented fully, and shall provide proof of the inclusion in the deed to the property of complete information about the materials buried and quantity of regulated substances remaining at the facility and any limitations on future land or water uses created as a result of the facility's operations or closure activities.

F. Post-Closure

1. Post-closure requirements by ADEQ Water Permits Section will be based on the review of facility closure activities.

2. If a post-closure plan is required, the post-closure plan shall ensure that any reasonable probability of future discharges from the facility, and of exceeding Aquifer Water Quality Standards at the applicable points of compliance, are eliminated to the greatest extent practicable. The post-closure plan shall describe all of the following:

a. The duration of the post-closure care.

b. The monitoring procedures to be implemented by the permittee, including monitoring frequency, type, and location.

c. A description of the operating and maintenance procedures to be implemented for aquifer quality protection devices, such as liners, treatment systems, pump-back systems, and monitoring wells.

d. A schedule and description of physical inspections to be conducted at the facility following closure.

e. An estimate of the cost of post-closure maintenance and monitoring.

f. A description of limitations on future land or water uses; or both, at the facility site as a result of facility operations.

3. The permittee shall notify ADEQ Water Permits Section in writing when the post-closure activities have been completed.

G. Compliance Schedule Requirements

1. A copy of the emergency response plan shall be submitted to ADEQ Water Quality Compliance within 30 days from the effective date of this permit. The plan shall include the information as referenced in PART II.C.4.

H. Reporting Requirements

1. Reporting Location

Signed copies of all reports required herein shall be submitted to the Department

Arizona Department of Environmental Quality
Water Quality Compliance, Data Unit (M0501B)
3033 N. Central Ave.
Phoenix, Arizona 85012
Phone Number: (602) 207-4681

2. Monitoring Reporting

a. The permittee shall complete the SMRF provided by the Department to reflect facility inspection requirements designated in PART IV, TABLE II and submit to ADEQ Water Quality Compliance quarterly along with other reports required by this permit. Facility inspection reporting on the SMRF shall be submitted no less frequently than quarterly, regardless of operational status.

b. PART IV, TABLE I contain the frequency for reporting results from discharge monitoring requirements. Results shall be submitted in the SMRF. Monitoring methods shall be recorded and any deviations from the methods and frequencies prescribed in this permit shall be reported.

c. The permittee shall complete the SMRF, to be supplied by the Department. The results of all monitoring required by this permit shall be submitted in such a format as to allow direct comparison with the limitations and requirements of the permit.

3. Permit Violation or Alert Level Exceedance Reporting

a. The permittee shall notify ADEQ Water Quality Compliance within five days of becoming aware of a violation of any permit condition or an Alert Level having been exceeded.

b. The permittee shall submit a written report within 30 days after becoming aware of the violation of a permit condition or of an Alert Level having been exceeded. The report shall document all of the

following:

(1) A description of the violation and its cause;

(2) the period of violation, including exact date(s) and time(s), if known, and the anticipated time period during which the violation is expected to continue;

(3) any action taken or planned to mitigate the effects or the violation, or to eliminate or prevent recurrence of the violation;

(4) any monitoring activity or other information which indicates that any pollutants would be reasonably expected to cause a violation of an Aquifer Water Quality Standard; and

(5) any malfunction or failure of pollution control devices or other equipment or process.

4. Amendments Reporting

a. All requests for permit amendments shall be done in accordance with PART VI.M., unless otherwise specified in this permit.

b. Requests for a significant amendment to a facility shall be submitted at least 180 calendar days before making the permit amendments.

5. Operational Reporting

a. The permittee shall report operational conditions listed in PART IV, TABLE II in the SMRF quarterly. If none of the conditions occur, the report shall say "no event" for a particular reporting period. If the facility is not in operation, the permittee shall indicate that fact in the SMRF.

b. The permittee shall submit data required in PART IV, TABLES I & II regardless of the operating status of the facility unless otherwise approved by the Department or allowed in this permit.

6. Monitoring Records Retention & Submittal

The facility shall retain copies of laboratory analysis forms, and other relevant information such as documentation on sampling date and time, name of sampler, static water level prior to sampling, sampling method, purging volume, indicator parameters, analytical method, method detection limit, date of analysis, preservation and transportation procedures, and analytical facility for a period of 10 years. All analytical and inspection data shall be compiled on SMRFS and submitted to ADEQ.

7. Submittal of Sampling Reports:

Reports of samples taken will be submitted to ADEQ Water Quality Compliance within 30 days after the end of each quarter. The following schedule will be used:

Samples taken during quarter beginning	Quarterly Report due by
Jan 1	Apr 30
Apr 1	Jul 30
Jul 1	Oct 30
Oct 1	Jan 30

PART III. OTHER CONDITIONS

A. Analytical Methodology

The water samples shall be analyzed using EPA approved methods or Arizona State approved methods as long as the method detection limit is equal to or less than the limits listed in Table I, PART IV. The analysis shall be performed by a laboratory licensed by the Arizona Department of Health Services, Office of Laboratory Licensure & Certification. For results to be considered valid, all analytical work shall meet quality control standards specified in the approved methods. A list of certified laboratories can be obtained at the address listed below:

Arizona Department of Health Services
Office of Laboratory Licensure & Certification
1740 W. Adams Street, Room 203 North
Phoenix, Arizona 85007
Phone Number: (602) 364-0720

B. Environmental Laboratory Contact

Upon submittal of the samples to a state-certified laboratory for analysis, a copy of the signed permit shall be forwarded to the laboratory for reference.

PART IV. TABLE

TABLE I[1]
DISCHARGE MONITORING

Sampling Point Number	Identification	Latitude	Longitude
1	after disinfection at a sample port in the discharge line[2]	33° 27' 55" N	112° 21' 56" W

Parameter	Alert Level (AL)	Discharge Limit (DL)	Sample Type	Sampling Frequency	Reporting Frequency
Flow	3.9MGD	4.1MGD[3]	AT[4]	Daily	Quarterly
Total Nitrogen[5]	8.0	10.0	Discrete	Monthly	"
Nitrate and Nitrite (as N)	NL[6]	NL	"	"	"
Total Kjeldahl Nitrogen (TKN)	NL	NL	"	"	"
Enteric Virus (4 of 7 samples)	NL	None[7] Detected per 40 liter sample	AT	Monthly	"

[1] All Discharge Limits in this table are listed in mg/l except flow which is in million gallons per day (MGD).
[2] Turbidity samples shall be taken after filtration and before disinfection.
[3] MGD equals million gallons per day based on average daily monthly flow.
[4] Appropriate Technology.
[5] Total Nitrogen equals Nitrate-Nitrite plus TKN.
[6] NL means no limit.
[7] When the first four samples of no greater than seven are non detect, sampling for Enteric Viruses will be suspended and the permittee may place "sampling not required" in the SMRF. This shall continue until turbidity exceedances occur (see footnote # 9) .

Turbidity (single reading)	NL	5 NTU's[8]	AT[9]	Daily[10]	"
Turbidity (24 hour average)	NL	2 NTU's	"	Daily[11]	"
Fecal Coliform (single sample)	NL	23 CFU[12]	Discrete	Daily[13]	"
Fecal Coliform (4 of 7 samples)	NL	0 CFU		Daily	"

Parameter	AL	DL	Sampling Frequency	Reporting Frequency
Metals (Total):				
Arsenic	0.04	0.05	Quarterly	Quarterly
Antimony	0.0048	0.006	"	"
Barium	1.8	2.0	"	"
Beryllium	0.0032	0.004	"	"
Cadmium	0.004	0.005	"	"
Chromium	0.08	0.10	"	"
Fluoride	3.2	4.0	"	"
Lead	0.04	0.05	"	"
Mercury	0.0016	0.002	"	"
Nickel	0.08	0.1	"	"
Selenium	0.04	0.05	"	"
Thallium	0.0016	0.002	"	"

[8] NTU means nepholometric turbidity unit.

[9] Appropriate technology for turbidity monitoring shall be an instrument with a signal averaging time not exceeding 120 seconds. Any exceedance of the single sample reading or the 24 hour average shall result in sampling for enteric virus according to the sampling schedule in this table, except that occasional spikes in the turbidity measurement due to backflushing or an instrument malfunction will not be considered an exceedance. An exceedance must be explained and submitted to the Department with the corresponding quarterly Self Monitoring Report Form.

[10] Means a single maximum reading during the 24 hour period.

[11] Means continuous readings 24 hours per day, and is reported as a 24 hour average.

[12] CFU means colony forming units in a 100 milliliter sample.

[13] "Daily" means every day on which a sample can practicably be obtained and delivered in sufficient time for proper analysis, provided that no less than four samples in each calender week are obtained and analyzed.

Turbidity (single reading)	NL	5 NTU's[8]	AT[9]	Daily[10]	"
Turbidity (24 hour average)	NL	2 NTU's	"	Daily[11]	"
Fecal Coliform (single sample)	NL	23 CFU[12]	Discrete	Daily[13]	"
Fecal Coliform (4 of 7 samples)	NL	0 CFU		Daily	"

Parameter	AL	DL	Sampling Frequency	Reporting Frequency
Metals (Total):				
Arsenic	0.04	0.05	Quarterly	Quarterly
Antimony	0.0048	0.006	"	"
Barium	1.8	2.0	"	"
Beryllium	0.0032	0.004	"	"
Cadmium	0.004	0.005	"	"
Chromium	0.08	0.10	"	"
Fluoride	3.2	4.0	"	"
Lead	0.04	0.05	"	"
Mercury	0.0016	0.002	"	"
Nickel	0.08	0.1	"	"
Selenium	0.04	0.05	"	"
Thallium	0.0016	0.002	"	"

[8] NTU means nepholometric turbidity unit.

[9] Appropriate technology for turbidity monitoring shall be an instrument with a signal averaging time not exceeding 120 seconds. Any exceedance of the single sample reading or the 24 hour average shall result in sampling for enteric virus according to the sampling schedule in this table, except that occasional spikes in the turbidity measurement due to backflushing or an instrument malfunction will not be considered an exceedance. An exceedance must be explained and submitted to the Department with the corresponding quarterly Self Monitoring Report Form.

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[11] Means continuous readings 24 hours per day, and is reported as a 24 hour average.

[12] CFU means colony forming units in a 100 milliliter sample.

[13] "Daily" means every day on which a sample can practicably be obtained and delivered in sufficient time for proper analysis, provided that no less than four samples in each calender week are obtained and analyzed.

PART V REFERENCES: PERTINENT INFORMATION

A. References

The terms and conditions set forth in this permit have been developed based upon the information contained in the following:

1. Field Inspection Form(s) dated: None
2. Permit Application dated: 12/29/00
3. Engineering Review File Number:
4. Aquifer Impact Review dated: 4/3/01
5. Preliminary Decision to Issue dated:
6. Public Notice dated: April 26, 2001
7. Public Hearing comments, correspondence and any additional supplemental information contained in the permit file: None
8. Other:

B. Facility Information

1. Facility Contact Person: David Ellis
   Title: General Manager
2. Address: Litchfield Park Service Company
   111 W. Wigwam Blvd.
   Litchfield Park, Arizona 85340
3. Emergency Telephone Number: 623-935-9367

   The Department shall be notified within 30 days of the change in facility contact person.
4. Landowner of Facility Site:
   Litchfield Park Service Company
   111 W. Wigwam Blvd.
   Litchfield Park, Arizona 85340

PART VI GENERAL CONDITIONS AND RESPONSIBILITIES

A. Annual Registration Fees.
The permittee shall pay an Annual Registration Fee to ADEQ. The Annual Registration Fee is based upon the amount of daily influent or discharge of pollutants in gallons per day as established by ARS § 49-242(D). This fee is payable to ADEQ by January 31, each year.

B. Duty to Comply. [A.R.S. §§ 49-221 through 263]
The permittee shall comply with all conditions of this permit and all applicable provisions of Title 49, Chapter 2, Articles 1, 2 and 3 of the Arizona Revised Statutes and Title 18, Chapter 9, Articles 1 through 4 and Title 18, Chapter 11, Article 4 of the Arizona Administrative Code. Any permit non-compliance constitutes a violation and is grounds for an enforcement action pursuant to Title 49, Chapter 2, Article 4 or permit modification, suspension, or revocation.

C. Duty to provide information. [A.R.S. §§ 49-243(K)(2) and 49-243(K)(8)]
The permittee shall furnish to the Director, or an authorized representative, within a time specified, any information which the Director may request to determine whether cause exists for modifying, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Director, upon request, copies of records required to be kept by this permit.

D. Severability. [A.R.S. § 49-243(K)(8)]
The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

E. Proper Operation and Maintenance. [A.R.S. § 49-243(K)(8)]
The permittee shall, at all times, properly operate and maintain all facilities, treatment processes, and discharge control systems which are installed or used by the permittee to achieve compliance with the terms and conditions of this permit.

F. Compliance with Aquifer Water Quality Standards. [A.R.S. § 49-243(B)(2) and (B)(3)]
The permittee shall not cause or contribute to a violation of an aquifer water quality standard at the applicable point of compliance for the facility. Where, at the time of issuance of the permit, an aquifer already exceeds an aquifer water quality standard for a pollutant, the permittee shall not discharge that pollutant so as to further degrade, at the applicable point of compliance for the facility, the water quality of any aquifer for that pollutant.

G. Technical and Financial Capability.
[A.R.S. §§ 49-243(K)(8) and 49-243(N) and A.A.C. R18-9-A202(B) and R18-9-A203(E) and (F)]
The permittee shall have and maintain the technical and financial capability necessary to fully carry out the terms and conditions of this permit. Any bond, insurance policy, trust fund, or other financial assurance mechanism provided as a demonstration of financial

capability in the permit application, pursuant to A.A.C. R18-9-A203(D), shall be in effect prior to any discharge authorized by this permit and shall remain in effect for the duration of the permit.

H. Reporting of Bankruptcy or Environmental Enforcement. [A.A.C. R18-9-A207(C)]
The permittee shall notify the Director within five days after the occurrence of any one of the following:

1. The filing of bankruptcy by the permittee.
2. The entry of any order or judgment not issued by the Director against the permittee for the enforcement of any environmental protection statute or rule.

I. Monitoring and Records. [A.R.S. § 49-243(K)(8) and A.A.C. R18-9-A206]
The permittee shall conduct any monitoring activity necessary to assure compliance with this permit, with the applicable water quality standards established pursuant to A.R.S. §§ 49-221, 49-223 and 49-241 through 49-252.

1. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
2. The permittee shall retain records of all monitoring information, including: copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of 10 years from the date of the sample, measurement report, or application. This period may be extended by request of the Director at any time.
3. At a minimum, records of monitoring information shall include:
   a. The date, time, and exact place of sampling or measurements
   b. The individual(s) who performed the sampling or measurements
   c. The date(s) analyses were performed
   d. The individual(s) who performed the analyses
   e. The analytical techniques or methods used
   f. The results of such analyses
   g. The chain of custody records, and
   h. Any field notes relating to the information described in (a) - (g) above.

J. Other information. [A.R.S. § 49-243(K)(8)]
Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Director, the permittee shall promptly submit the correct facts or information.

K. Inspection and Entry. [A.R.S. §§ 49-203(B) and 49-243(K)(8)]
The permittee shall allow the Director, or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to enter and inspect the facility as reasonably necessary to ensure compliance with Title 49, Chapter 2, Article 3 of the Arizona Revised Statutes, and Title 18, Chapter 9, Articles 1 through 4 of the Arizona Administrative Code and the terms and conditions of this permit. In so doing, the Department representative may:

1. Enter upon the operator's premises where a regulated facility or activity is located or conducted, or locations where records must be kept under the conditions of this permit.

2. Have access to and copy, at reasonable times, any records required to be kept under the conditions of this permit.
3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit.
4. Sample or monitor at reasonable times, for the purposes of assuring permit compliance, any substances or parameters at any location.
5. Take photographs or video tape.
6. Take other actions reasonably necessary to determine compliance with Aquifer Protection Permit statutes or rules or the terms and conditions of this permit.

L. **Duty to Modify. [A.R.S. § 49-243(K)(8)]**
The permittee shall apply for and receive a written amendment before deviating from any of the designs or operational practices authorized by this permit.

M. **Permit Action: Amendment, Transfer, Suspension & Revocation. [A.R.S. §§ 49-201, 49-241 through 251, A.A.C. R18-9-A211, R18-9-A212 and R18-9-A213]**
This permit may be amended, transferred, renewed, or revoked for cause, under the rules of the Department. The filing of a request by the permittee for a permit action does not stay or suspend the effectiveness of any existing permit condition. The Director shall issue a public notice of all proposed permit actions pursuant to A.A.C. R18-9-A211, R18-9-A212 and R18-9-A213.

1. **Permit Reopen.**
The Director may reopen this permit and amend it pursuant to A.A.C. R18-9-A211.

2. **Permit Transfer.**
This permit may not be transferred to any other person except after notice to and approval of the transfer by the Department. No transfer will be approved until the applicant complies with all transfer requirements as specified in A.A.C. R18-9-A212(B) and (C).

The operator shall notify the Water Permits Section in writing within 15 days after any change in the owner or operator of the facility. The notification shall state the permit number, the name of the facility, the date of property transfer, and the name, address, and phone number where the new owner or operator can be reached. The operator shall advise the new owner or operators of the terms of this permit and the need for permit transfer in accordance with the rules.

TABLE II
FACILITY INSPECTION

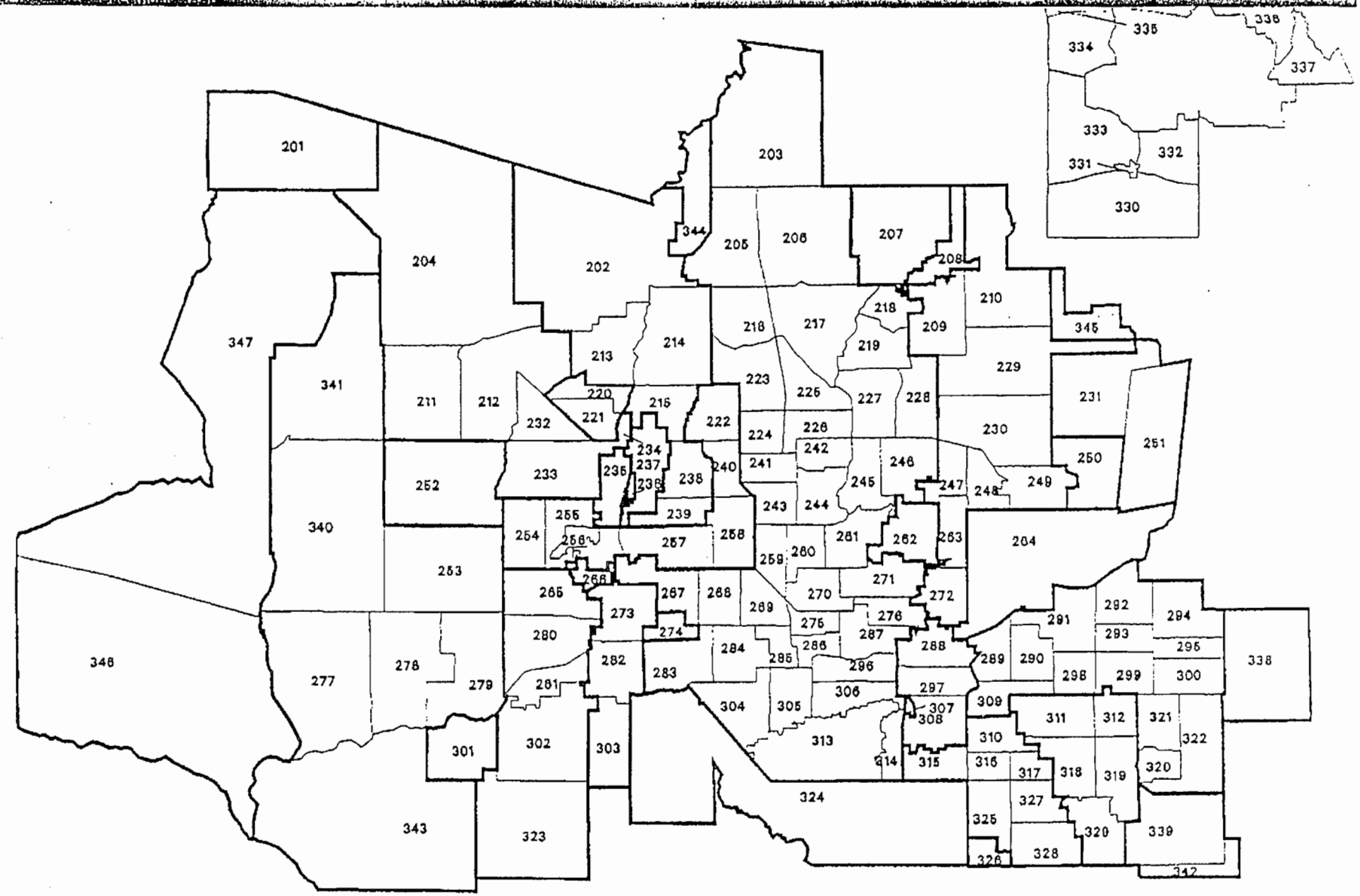
Parameter	Performance Levels	Inspection Frequency
Pump Integrity	Good Working Condition	Weekly
Treatment Plant Components	Good Working Condition	Weekly

APPENDIX E – MAG Regional Analysis Zones and Population Projections

The Regional Analysis Zone map and the population projections in this appendix were copied from the MAG 208 Water Quality Management Plan, October 2002.

MARICOPA ASSOCIATION of GOVERNMENTS

MUNICIPAL PLANNING AREAS



Municipal Planning Area Boundary

RAZ Boundary

MARICOPA ASSOCIATION of GOVERNMENTS

December, 1996

REGIONAL ANALYSIS ZONES

POPULATION PROJECTIONS SUMMARY – MAG 208 WQMP REVISION

Year	2000	2005	2010	2015	2020
MAG Planning Area Population Summary					
Total Resident	2,954,150	3,329,550	3,709,575	4,101,775	4,516,100
Total Non-resident	89,174	95,441	103,395	114,067	125,026
Transient	36,118	38,737	41,242	43,164	45,125
Seasonal	53,056	56,704	62,153	70,903	79,901
Total	3,132,498	3,520,432	3,916,365	4,329,909	4,766,152
Resident and Seasonal Population by 208 Planning Region and Municipal Planning Area					
Northeast Region					
Cave Creek	4,231	6,463	9,188	11,398	13,288
Carefree	3,041	3,578	4,760	5,196	5,564
Scottsdale	206,429	244,556	273,343	297,940	311,047
Fountain Hills	18,745	26,113	34,939	52,860	54,999
Paradise Valley	13,353	13,388	13,587	13,734	13,760
SRPMIC	6,851	6,975	7,024	7,162	7,467
County -Rio Verde	1,152	1,179	1,216	1,253	1,286
County-Spur Cross	58	58	58	58	58
Fort McDowell	750	838	944	1,097	1,174
Subtotal	254,610	303,148	345,059	390,698	408,643
Northwest Region					
Peoria	96,974	130,910	145,797	172,138	188,834
Surprise	27,739	38,486	43,105	49,205	64,143
El Mirage	6,605	6,678	6,702	6,869	8,148
Youngtown	2,978	3,040	3,119	3,206	3,286
Glendale	215,477	235,863	259,808	287,873	305,529
Luke AFB	3,794	3,796	3,815	3,815	3,821
County	71,994	73,551	75,536	79,332	86,462
Subtotal	425,561	492,324	537,882	602,438	660,223
Southeast Area					
Mesa	444,643	500,151	561,764	591,196	619,228
Tempe	166,207	172,458	176,878	183,392	185,862
Guadalupe	5,506	5,665	5,724	5,731	5,736
Chandler	171,099	199,967	223,398	242,995	261,587
Gilbert	108,688	132,978	174,856	201,616	245,440
Queen Creek	7,452	10,735	14,042	17,283	20,584
County - Sun Lakes	13,241	15,900	18,539	22,169	26,839
Subtotal	916,836	1,037,854	1,175,201	1,264,382	1,365,276
Southwest Area					
Buckeye	18,084	22,385	28,176	51,446	82,416
Goodyear	19,939	28,504	38,425	58,712	93,396
Litchfield Park	4,942	6,583	8,519	12,629	14,778
Avondale	29,450	32,922	37,909	52,307	85,294
Tolleson	4,525	4,783	6,955	7,603	8,267
Unincorporated Areas	1,471	2,509	3,472	5,166	7,816
Subtotal	78,411	97,686	123,456	187,863	291,967

POPULATION PROJECTIONS SUMMARY – MAG 208 WQMP REVISION

Year	2000	2005	2010	2015	2020
Central Area					
Phoenix	1,309,799	1,427,315	1,557,858	1,687,240	1,812,784
Outlying Areas					
Wickenburg	8,495	8,967	9,516	10,070	10,582
Gila Bend	2,124	2,249	2,393	2,548	2,742
GRIC	2,708	2,764	2,832	2,919	3,101
County SW	5,568	8,530	10,614	14,854	25,006
County SE	-	-	-	-	-
County NE	1,784	3,475	3,947	4,067	4,119
County NW	1,310	1,942	2,970	5,599	11,558
Subtotal	21,989	27,927	32,272	40,057	57,108
SROG					
Phoenix	1,309,799	1,427,315	1,557,858	1,687,240	1,812,784
Youngtown	2,978	3,040	3,119	3,206	3,286
Glendale	219,271	239,659	263,623	291,688	309,350
Tempe	166,207	172,458	176,878	183,392	185,862
Mesa	444,643	500,151	561,764	591,196	619,228
Scottsdale	206,429	244,556	273,343	297,940	311,047
Subtotal	2,349,327	2,587,179	2,836,585	3,054,662	3,241,557

Notes:

1. The resident population, housing unit and employment projections are consistent with the October 27, 1995 Special Census.
2. The resident population and employment projections were prepared to be consistent with the county population control totals developed by the Department of Economic Security (DES) and approved by the director of DES in January 1997 as required by Executive Order 95-2.
3. These projections were based on planned and proposed development and adopted land use plans.
4. These projections should be used with caution. They are subject to fluctuation as a result of changes in economic and development conditions.

Prepared by Carollo Engineers for the purpose of 208 Water Quality Management Planning, based on "MAG Socioeconomic Projections Interim Report, June 1997".

Table 2.5 Population Projection: Southeast Region MAG 208 Water Quality Management Plan Update					
Planning Area	2000	2005	2010	2015	2020
Mesa	444,643	500,151	561,764	591,196	619,228
Tempe	166,207	172,458	176,878	183,392	185,862
Guadalupe	5,506	5,665	5,724	5,731	5,736
Chandler	171,099	199,967	223,398	242,995	261,587
Gilbert	108,688	132,978	174,856	201,616	245,440
Queen Creek	7,452	10,735	14,042	17,283	20,584
County (Sun Lakes)	13,241	15,900	18,539	22,169	26,839
Total	916,836	1,037,854	1,175,201	1,264,382	1,365,276
MAG POPTAC Population and Socioeconomic Projections, Interim Report, July 1997.					

2.2.4 Southwest Region

The southwest region of the MAG Planning Area is comprised of the MAG member agencies of Buckeye, Goodyear, Litchfield Park, Avondale, and Tolleson. These communities are shown on Figure 2.5. Additionally, there are unincorporated areas within this region. The population projections for the southwest region are summarized in Table 2.6. This area is projected to significantly increase its share of the County total population from 2.6 percent in 2000 to 6.4 percent in 2020.

Figure 2.5 MAG Southwest Region

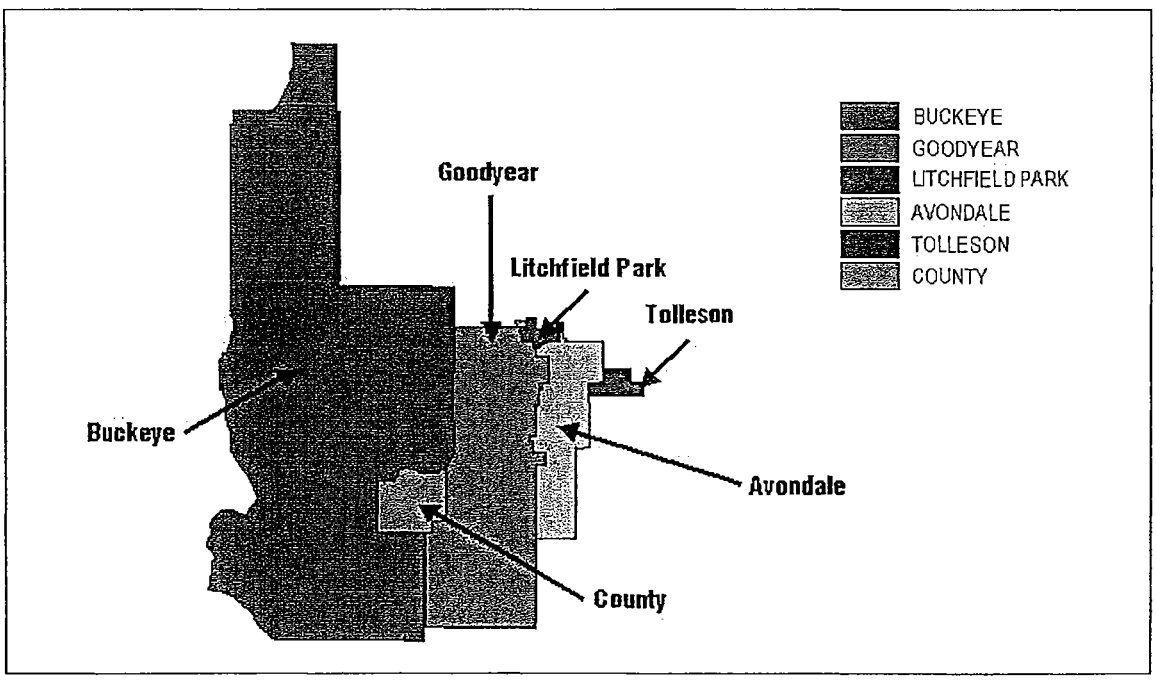
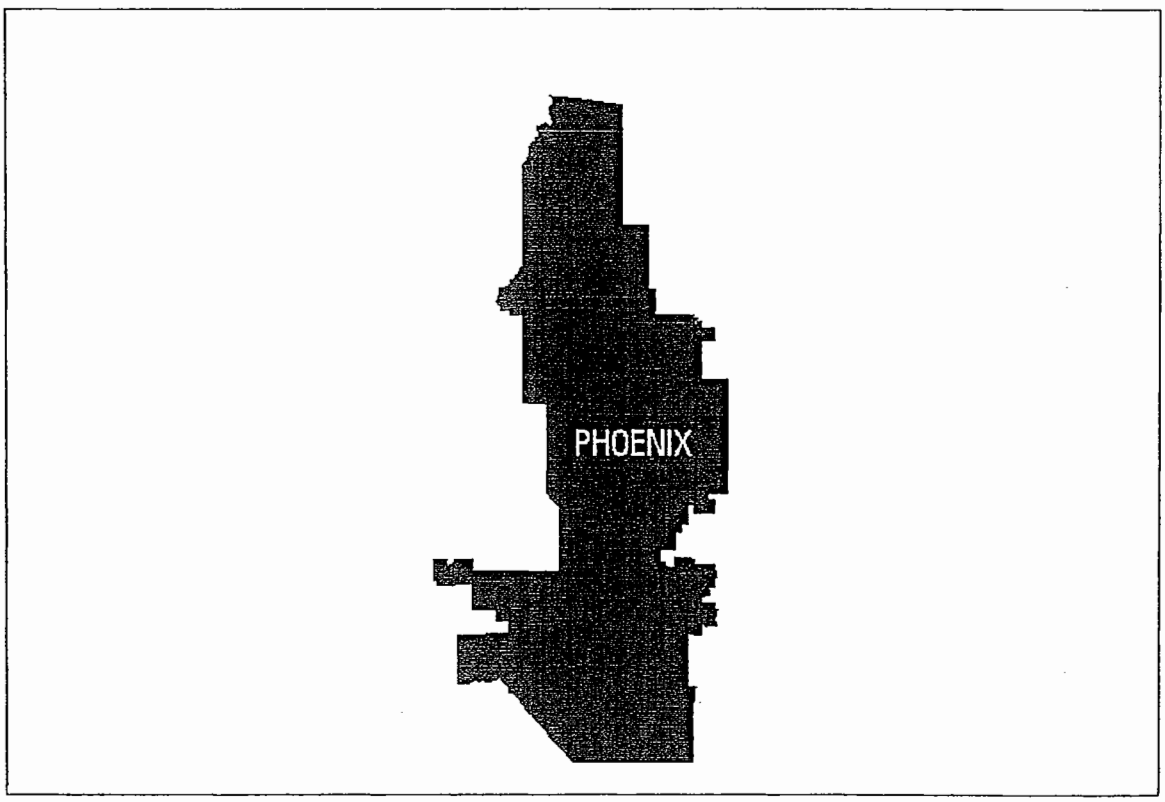


Table 2.6 Population Projection: Southwest Region MAG 208 Water Quality Management Plan Update					
Planning Area	**2000**	**2005**	**2010**	**2015**	**2020**
Buckeye	18,084	22,385	28,176	51,446	82,416
Goodyear	19,939	28,504	38,425	58,712	93,396
Litchfield Park	4,942	6,583	8,519	12,629	14,778
Avondale	29,450	32,922	37,909	52,307	85,294
Tolleson	4,525	4,783	6,955	7,603	8,267
County	1,471	2,509	3,472	5,166	7,816
Total	78,411	97,686	123,456	187,863	291,967
MAG POPTAC Population and Socioeconomic Projections, Interim Report, July 1997.					

2.2.5 Central Region

The City of Phoenix incorporated limits comprise the entire Central Region as shown on Figure 2.6. The population projections for the planning period are summarized in Table 2.7. This region is the most fully developed and populated of the five regions. The Central Region's share of the County total population is projected to decrease from 43.6 percent in 2000 to 39.4 percent in 2020. Despite the decreased share of total population, the Central Region will maintain the largest share of the total population compared to the Southeast Region over the planning horizon.

Figure 2.6 MAG Central Region



APPENDIX F – LPSCo Financial Assurances

The financial statements in this appendix demonstrates the ability of the LPSCo to construct operate and maintain the wastewater system over its useful life.

The letter in this appendix documents the financial capability to construct the Regional Sanitary Sewer.

ARIZONA CORPORATION COMMISSION
UTILITIES DIVISION

ANNUAL REPORT MAILING LABEL – MAKE CHANGES AS NECESSARY

L

SW-01428A
Litchfield Park Service Company - Sewer
111 W. Wigwam Blvd, Suite B
Litchfield Park, AZ 85340

ANNUAL REPORT

FOR YEAR ENDING

12	31	2004

FOR COMMISSION USE

ANN05	04

S 7.10.05

Statutory Agent: C T Corporation System
(Name)

3225 N Central Ave	Phoenix	AZ	85012
(Street)	(City)	(State)	(Zip)

(602) 277-4792		
Telephone No. (Include Area Code)	Fax No. (Include Area Code	Pager/Cell No. (Include Area Code)

Attorney: Richard Sallquist @ Sallquist & Drummond, P.C.
(Name)

4500 South Lake Shore Drive, Suite 339	Tempe,	AZ	85282
(Street)	(City)	(State)	(Zip)

(602) 224-9222	(480) 345-0412	
Telephone No. (Include Area Code)	Fax No. (Include Area Code)	Pager/Cell No. (Include Area Code)

☐ **Please mark this box if the above address(es) have changed or are updated since the last filing.**

OWNERSHIP INFORMATION

Check the following box that applies to your company:

- ☐ **Sole Proprietor (S)**
- ☒ **C Corporation (C) (Other than Association/Co-op)**
- ☐ **Partnership (P)**
- ☐ **Subchapter S Corporation (Z)**
- ☐ **Bankruptcy (B)**
- ☐ **Association/Co-op (A)**
- ☐ **Receivership (R)**
- ☐ **Limited Liability Company**
- ☐ **Other (Describe)** _____

COUNTIES SERVED

Check the box below for the county/ies in which you are certificated to provide service:

☐ **APACHE**	☐ **COCHISE**	☐ **COCONINO**
☐ **GILA**	☐ **GRAHAM**	☐ **GREENLEE**
☐ **LA PAZ**	☒ **MARICOPA**	☐ **MOHAVE**
☐ **NAVAJO**	☐ **PIMA**	☐ **PINAL**
☐ **SANTA CRUZ**	☐ **YAVAPAI**	☐ **YUMA**
☐ **STATEWIDE**		

COMPANY NAME
Litchfield Park Service Company

CALCULATION OF DEPRECIATION EXPENSE

Acct. No.	DESCRIPTION	Original Cost (1)	Depreciation Percentage (2)	Depreciation Expense (1x2)
351	Organization	-		
352	Franchises	-		
353	Land and Land Rights	1,783,426		
354	Structures and Improvements	9,077,845		294,018
355	Power Generation Equipment	305,488		12,405
360	Collection Sewers - Force	263,636		4,693
361	Collection Sewers - Gravity	14,003,065		238,486
362	Special Collecting Structures	-		
363	Services to Customers	3,454,790		68,791
364	Flow Measuring Devices	22,188		1,213
365	Flow Measuring Installations	13,378		1,115
370	Receiving Wells	855,200		28,507
380	Treatment and Disposal Equip.	4,300,202		212,836
381	Plant Sewers	23,117		1,156
382	Outfall Sewer Lines	343,681		11,456
389	Other Plant and Misc. Equipment	110,308		4,291
390	Office Furniture and Equipment	126,871		7,931
391	Transportation Equipment	225		45
393	Tools, Shop and Garage Equip.	18,746		937
394	Laboratory Equipment	84,159		8,075
395	Power Operated Equipment	1,364,823		168,261
398	Other Tangible Plant	334,219		32,701
	SUBTOTAL	36,485,366		1,096,916
	CIAC Amortization			(178,152)
	TOTALS	36,485,366		918,763

This amount goes on Comparative Statement of Income and Expense Acct. 403

COMPANY NAME
Litchfield Park Service Company

BALANCE SHEET (CONTINUED)

Acct. No.	LIABILITIES	BALANCE AT BEGINNING OF TEST YEAR	BALANCE AT END OF YEAR
	CURRENT LIABILITES		
231	Accounts Payable	$ 586,693	$ 315,981
232	Notes Payable (Current Portion)	140,000	195,000
234	Notes/Accounts Payable to Associated Companies	4,482,113	8,909,278
235	Customer Deposits	220,870	236,210
236	Accrued Taxes	321,296	128,149
237	Accrued Interest	266,054	195,012
241	Miscellaneous Current and Accrued Liabilities	103,778	47,846
	TOTAL CURRENT LIABILITIES	$ 6,120,804	$ 10,027,475
	LONG-TERM DEBT (Over 12 Months)		
224	Long-Term Notes and Bonds	$ 12,327,420	$ 12,161,759
	DEFERRED CREDITS		
252	Advances in Aid of Construction	$ 15,203,825	$ 22,552,904
253	Other Deferred Credits		
255	Accumulated Deferred Investment Tax Credits		
271	Contributions in Aid of Construction	7,507,671	13,646,610
272	Less: Amortization of Contributions	1,283,303	1,529,632
281	Accumulated Deferred Income Tax	474,436	474,436
	TOTAL DEFERRED CREDITS	$ 21,902,630	$ 35,144,318
	TOTAL LIABILITIES	$ 40,350,854	$ 57,333,552
	CAPITAL ACCOUNTS		
201	Common Stock Issued	$ 78,200	$ 78,200
211	Other Paid in Capital	14,118,180	14,118,180
215	Retained Earnings	2,892,209	4,982,635
218	Proprietary Capital (Sole Props and Partnerships)		
	TOTAL CAPITAL	$ 17,088,590	$ 19,179,015
	TOTAL LIABILITIES AND CAPITAL	$ 57,439,444	$ 76,512,568

COMPANY NAME Litchfield Park Service Company

SUPPLEMENTAL FINANCIAL DATA
Long-Term Debt

	LOAN #1	LOAN #2	LOAN #3	LOAN #4
Date Issued	04/01/1999	06/01/2001		
Source of Loan	IDA	IDA		
ACC Decision No.	61655	63775		
Reason for Loan	Capital Expansion	Capital Expansion		
Dollar Amount Issued	$5,335,000	$7,500,000	$	$
Amount Outstanding	$4,815,000	$7,500,000	$	$
Date of Maturity	10/01/2023	10/01/2031		
Interest Rate	5.88%	6.70%	%	%
Current Year Interest	$262,887	$435,402	$	$
Current Year Principle	$140,000	$0.00	$	$

COMPANY NAME	Litchfield Park Service Company

WASTEWATER COMPANY PLANT DESCRIPTION (CONTINUED)

COLLECTION MAINS

Size (in inches)	Material	Length (in feet)
4"	VCP	208,097
6"	VCP	4,602
8"	VCP	908,468
10"	VCP	45,084
12"	VCP	32,021
15"	VCP	64,986
18"	VCP	17,635
21"	VCP	23,016
24"	VCP	10,480
30"	VCP	3,663

SERVICES

Size (in inches)	Material	Quantity
4	VCP	69,848
6	VCP	224
8	VCP	3

FOR THE FOLLOWING FIVE ITEMS, LIST THE UTILITY OWNED ASSETS IN EACH CATEGORY

SOLIDS PROCESSING AND HANDLING FACILITIES	Aerobic Digester/ Centrifuge
DISINFECTION EQUIPMENT (Chlorinator, Ultra-Violet, Etc.)	Ultra-Violet
FILTRATION EQUIPMENT (Rapid Sand, Slow Sand, Activated Carbon, Etc.)	Aqua Disk-Filter Disk
STRUCTURES (Buildings, Fences, Etc.)	The facility currently contains 4 steel frame buildings w/ concrete masonry unit (CMU) facia on enclosed concrete tank structures. The facility is bordered by aluminum fencing and gates.
OTHER (Laboratory Equipment, Tools, Vehicles, Standby Power Generators, Etc.	1 Standby Generator, Tools, Lab Equipment, 8 Vehicles, 2 golf carts, 3 trailers

STATISTICAL INFORMATION

Total number of customers	11,817
Total number of gallons treated	888,459,000

COMPANY NAME Litchfield Park Service Company YEAR ENDING 12/31/2004

PROPERTY TAXES

Amount of actual property taxes paid during Calendar Year 2004 was: $ 264,898.21

Attach to this annual report proof (e.g. property tax bills stamped "paid in full" or copies of cancelled checks for property tax payments) of any and all property taxes paid during the calendar year.

If no property taxes paid, explain why.

LITCHFIELD PARK SERVICE COMPANY INC.
111 W. Wigwam Blvd., Suite B
Litchfield Park, Arizona 85340
(623) 935-9367 X 0 Fax: (623) 935-1020 X 0000

Bank One
1370 N. Litchfield Road
Goodyear, AZ 85338

001820

DATE
September 17, 2004

AMOUNT
US$137,609.35
U.S. Funds

One Hundred Thirty Seven Thousand Six Hundred Nine Dollars and 35 Cents

PAY TO THE ORDER OF
Maricopa County Treasurer
PO Box 78574
Phoenix, AZ 85062-8574

Litchfield Park Service Company Inc.

⑈001820⑈ ⑆122100024⑆ 00529182⑈ ⑈0013760935⑈

022404 248 708 120 043 4 61507782 8 0545922404CM

CREDIT TO ACCT OF NAMED PAYEE WITHOUT PREJUDICE ABSENCE OF ENDORSEMENT GUARANTEED BY BANK ONE, NA

BANK ONE, NA
1119013314
09242004
5140257543

Location	Acct #	Check #	Amount	Issue Date	Paid Date	Sequence	Customer Data	Bank #
CD	529182	1820	$137,609.35		9/24/2004	5140257543		601

GL Category	CD VolID/CIMS Key	CD Label
000000000000	20040930523301	20040930523301

VERIFICATION AND SWORN STATEMENT

Intrastate Revenues Only

APR 14 2005

AZ CORP COMMISSION
Director of Utilities

VERIFICATION

STATE OF ARIZONA

I, THE UNDERSIGNED

OF THE

COUNTY OF MARICOPA
NAME (OWNER OR OFFICIAL) TITLE Peter Kampian, Chief Financial Officer
COMPANY NAME Litchfield Park Service Company

DO SAY THAT THIS ANNUAL UTILITY REPORT TO THE ARIZONA CORPORATION COMMISSION

FOR THE YEAR ENDING

MONTH	DAY	YEAR
12	31	2004

HAS BEEN PREPARED UNDER MY DIRECTION, FROM THE ORIGINAL BOOKS, PAPERS AND RECORDS OF SAID UTILITY; THAT I HAVE CAREFULLY EXAMINED THE SAME, AND DECLARE THE SAME TO BE A COMPLETE AND CORRECT STATEMENT OF BUSINESS AND AFFAIRS OF SAID UTILITY FOR THE PERIOD COVERED BY THIS REPORT IN RESPECT TO EACH AND EVERY MATTER AND THING SET FORTH, TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF.

SWORN STATEMENT

IN ACCORDANCE WITH THE REQUIREMENT OF TITLE 40, ARTICLE 8, SECTION 40-401, ARIZONA REVISED STATUTES, IT IS HEREIN REPORTED THAT THE GROSS OPERATING REVENUE OF SAID UTILITY DERIVED FROM ARIZONA INTRASTATE UTILITY OPERATIONS DURING CALENDAR YEAR 2004 WAS:

Arizona Intrastate Gross Operating Revenues Only ($)
$ 4,977,206

(THE AMOUNT IN BOX ABOVE INCLUDES $ 0 IN SALES TAXES BILLED, OR COLLECTED)

**REVENUE REPORTED ON THIS PAGE MUST INCLUDE SALES TAXES BILLED OR COLLECTED. IF FOR ANY OTHER REASON, THE REVENUE REPORTED ABOVE DOES NOT AGREE WITH TOTAL OPERATING REVENUES ELSEWHERE REPORTED, ATTACH THOSE STATEMENTS THAT RECONCILE THE DIFFERENCE. (EXPLAIN IN DETAIL)

SIGNATURE OF OWNER OR OFFICIAL

905-465-4523
TELEPHONE NUMBER

SUBSCRIBED AND SWORN TO BEFORE ME

A NOTARY PUBLIC IN AND FOR THE COUNTY OF Halton

THIS 11th DAY OF April

ANNE ELIZABETH READE
A COMMISSIONER OF OATHS,
REGIONAL MUNICIPALITY OF HALTON,
FOR ALGONQUIN POWER INCOME FUND.
EXPIRES FEBRUARY 25, 2008.

SIGNATURE OF NOTARY PUBLIC

(SEAL)

MY COMMISSION EXPIRES 25 Feb '08

LPSCO Consolidated Statement
BALANCE SHEET
AS AT December 31, 2004

	Actual	Prior Year
SSETS		
urrent Assets		
h - Operating	$707,794	$286,840
h - Capacity	10,000	10,000
hort Term Investments	1,123,763	1,156,305
ccounts Receivable	3,377,368	3,032,941
ounts Receivable - Interco	49,500	61,230
aids	64,826	60,720
otal Current Assets	**5,333,251**	**4,608,036**
rcompany	(1,111,410)	226,933
ong Term Assets		
ixed Assets		
and	2,464,529	2,423,503
erating Facility	65,648,839	48,890,473
s Accum Depreciation	(7,352,680)	(5,362,125)
ater Treatment Plant	2,343,546	
ontribution in Aid of Construction	(13,646,610)	(7,507,671)
um Depreciation - CIAC	1,529,632	1,283,303
Fixed Assets	**50,987,256**	**39,727,483**
er Assets		
struction in Process		1,425,404
ngible Asset - Net	8,021,830	5,370,471
eferred Costs	382,553	428,282
al Other Assets	**8,404,383**	**7,224,157**
otal Assets	**63,613,480**	**51,786,609**
BILITIES		
urrent Liabilities		
ccounts Payable and Accrued Liabilities	3,683,576	1,715,606
group	188,067	
ent Taxes Payable	26,900	204,078
anchise Tax Payable		
urrent Portion of Long Term Debt	195,000	140,000
al Current Liabilities	**4,093,543**	**2,059,684**
ong Term Liabilities		
tercompany Notes Payable	4,589,469	4,055,000
d Party Loans	12,491,059	12,672,019
tomer Meter Deposits	2,045,395	2,216,514
ustomer Advances in Aid of Construction	20,507,510	12,987,312
eferred Income Tax	474,436	474,436
al Long Term Liabilities	**40,107,869**	**32,405,281**
otal Liabilities	**44,201,412**	**34,464,965**
HAREHOLDERS EQUITY		
tributed Capital	14,118,180	14,118,180
mon Shares	78,200	78,200
otal Contributed Capital	**14,196,380**	**14,196,380**
nings		

EL SOL Consolidated Statement
INCOME STATEMENT
For the Twelve Months Ending December 31, 2004

CURRENT MONTH						YEAR TO DATE				
Actual	Budget	Prior	% Change Budget	% Change Prior		Actual	Budget	Prior	% Change Budget	% Change Prior
					Revenue					
					Water Sales					
$341,601	$505,542	$223,769	-32.43%	52.66%	Metered Sales - Residential Customers	$3,130,317	$5,055,833	$2,467,517	-38.09%	26.86%
63,069	0	77,072	0.00%	-18.17%	Metered Sales - Commercial Custome	779,867	0	601,854	0.00%	29.58%
77,014	0	57,062	0.00%	34.97%	Metered Sales - Industrial Customers/	877,647	0	670,363	0.00%	30.92%
6,517	0	7,793	0.00%	-16.37%	Fire Protection Revenue	192,315	0	166,636	0.00%	15.41%
488,201	505,542	365,696	-3.43%	33.50%		4,980,146	5,055,833	3,906,370	-1.50%	27.49%
					Waste Water Sales					
544,799	414,629	332,275	31.39%	63.96%	Residential Revenues	4,179,317	4,669,742	3,207,548	-10.50%	30.30%
77,280	0	46,513	0.00%	66.15%	Commercial Revenues	547,718	0	503,943	0.00%	8.69%
13,247	0	8,477	0.00%	56.27%	Industrial Revenues	106,201	0	16,954	0.00%	526.41%
635,326	414,629	387,265	53.23%	64.05%		4,833,236	4,669,742	3,728,445	3.50%	29.63%
					Reclaimed Water Sales (Effluent)					
9,151	3,365	3,650	171.95%	150.71%	Commercial Effluent Revenues	67,401	40,383	50,643	66.90%	33.09%
					Other Revenues					
3,243	0	39,015	0.00%	-91.69%	Other Revenues	183,619	0	496,633	0.00%	-63.03%
3,243	0	39,015	0.00%	-91.69%		183,619	0	496,633	0.00%	-63.03%
1,135,921	**923,536**	**795,626**	**23.00%**	**42.77%**	**Total Revenue**	**10,064,402**	**9,765,958**	**8,182,091**	**3.06%**	**23.01%**
					Operating Costs					
					Sources of Supply, Collections & Expenses					
359	0	0	0.00%	0.00%	Purchases Water	1,585	0	81,185	0.00%	-98.05%
2,760	0	40,447	0.00%	-93.18%	Purchased Power	300,538	0	361,581	0.00%	-16.88%
0	0	21	0.00%	-100.00%	Fuel for Power Production	0	0	265	0.00%	-100.00%
1,263	0	0	0.00%	0.00%	Chemicals	5,569	0	1,880	0.00%	196.22%
823	0	619	0.00%	32.96%	Materials & Suppplies	21,481	0	12,131	0.00%	77.08%
80,369	50,000	54,693	60.74%	46.95%	Contractual Services	996,784	600,003	460,286	66.13%	116.56%
0	0	0	0.00%	0.00%	Equipment Rental	6,097	0	0	0.00%	0.00%
686	0	0	0.00%	0.00%	Transportation Expenses	8,988	0	0	0.00%	0.00%
86,260	50,000	95,780	72.52%	-9.94%		1,341,042	600,003	917,328	123.51%	46.19%
					Water Treatment & Pumping Expenses					
0	0	0	0.00%	0.00%	Chemicals	0	0	1,971	0.00%	-100.00%
0	0	0	0.00%	0.00%	Materials & Suppplies	7,029	0	726	0.00%	868.18%
0	0	0	0.00%	0.00%	Contractual Services	0	0	1,871	0.00%	-100.00%
0	0	0	0.00%	0.00%	Equipment Rental	1,647	0	0	0.00%	0.00%
0	0	0	0.00%	0.00%		8,676	0	4,568	0.00%	89.93%
					Transportation & Distr, Treatment & Disposal Exp					
89,870	42,577	0	111.08%	0.00%	Purchased Power	741,561	510,928	27	45.14%	**********
22	0	0	0.00%	0.00%	Fuel for Power Production	233	0	0	0.00%	0.00%
10,666	0	0	0.00%	0.00%	Chemicals	141,352	0	3,734	0.00%	3685.54%
8,565	2,990	1,575	186.45%	443.81%	Materials & Suppplies	157,476	35,875	28,454	338.96%	453.44%
18,448	42,079	1,944	-56.16%	848.97%	Contractual Services	393,209	504,947	32,491	-22.13%	1110.21%

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For the Twelve Months Ending December 31, 2004

CURRENT MONTH						YEAR TO DATE				
Actual	Budget	Prior	% Change Budget	% Change Prior		Actual	Budget	Prior	% Change Budget	% Change Prior
					Administrative & General Costs					
$2,070	$0	$1,861	0.00%	11.23%	Telephone	$12,017	$0	$20,662	0.00%	-41.84%
664	14,350	7,695	-95.37%	-91.37%	Materials & Supplies	17,783	172,200	70,805	-89.67%	-74.88%
78,695	104,125	203,158	-24.42%	-61.26%	Contractual Services	1,059,601	1,249,495	1,086,651	-15.20%	-2.49%
3,588	6,013	6,842	-40.33%	-47.56%	Rentals-Building & Equipment	27,259	72,160	66,674	-62.22%	-59.12%
0	0	0	0.00%	0.00%	Security	874	0	113	0.00%	673.45%
1,984	0	(1,669)	0.00%	-218.87%	Transportation Expenses	23,242	0	20,507	0.00%	13.34%
0	0	2,316	0.00%	-100.00%	Meals & Enterainment	0	0	5,379	0.00%	-100.00%
6,967	171	7,446	3974.27%	-6.43%	Licences & Fees	71,968	2,050	22,756	3410.63%	216.26%
0	0	120	0.00%	-100.00%	Public Relations	805	0	5,750	0.00%	-86.00%
0	0	0	0.00%	0.00%	Charitable Donations	235	0	350	0.00%	-32.86%
6,256	6,200	13,241	0.90%	-52.75%	Insurance	81,256	74,400	65,837	9.22%	23.42%
23,067	20,073	19,580	14.92%	17.81%	Property Taxes	248,932	240,875	234,754	3.34%	6.04%
2,519	0	0	0.00%	0.00%	Central Office Costs	41,561	0	0	0.00%	0.00%
1,095	0	1,331	0.00%	-17.73%	Bank Charges	29,491	0	28,827	0.00%	2.30%
0	0	0	0.00%	0.00%	Capacity Costs	0	0	35,836	0.00%	-100.00%
126,905	**150,932**	**261,921**	**-15.92%**	**-51.55%**	**Total Administrative & General Costs**	**1,615,024**	**1,811,180**	**1,664,901**	**-10.83%**	**-3.00%**
781,815	**626,502**	**323,052**	**24.79%**	**142.01%**	**Net Income Before Depn, Interest & Tax**	**5,490,329**	**6,201,550**	**4,376,201**	**-11.47%**	**25.46%**
					Interest					
92,211	65,222	91,626	41.38%	0.64%	Interest	1,040,009	782,665	829,691	32.88%	25.35%
92,211	**65,222**	**91,626**	**41.38%**	**0.64%**	**Total Interest**	**1,040,009**	**782,665**	**829,691**	**32.88%**	**25.35%**
					Depreciation / Amortization					
178,238	144,799	134,325	23.09%	32.69%	Amortization	1,978,366	1,737,590	1,633,199	13.86%	21.13%
178,238	**144,799**	**134,325**	**23.09%**	**32.69%**	**Total Depreciation & Amortization**	**1,978,366**	**1,737,590**	**1,633,199**	**13.86%**	**21.13%**
					Income Taxes					
30,000	0	(221,434)	0.00%	-113.55%	Income Taxes	360,000	0	77,430	0.00%	364.94%
30,000	**0**	**(221,434)**	**0.00%**	**-113.55%**	**Total Income Taxes**	**360,000**	**0**	**77,430**	**0.00%**	**364.94%**
					Other Income and Expense					
(2,378)	0	0	0.00%	0.00%	Other Income and Expense	11,526	0	111	0.00%	**********
(2,378)	**0**	**0**	**0.00%**	**0.00%**	**Total Other Income and Expense**	**11,526**	**0**	**111**	**0.00%**	**10283.78%**
483,744	**416,481**	**318,535**	**16.15%**	**51.87%**	**Net Income**	**2,100,428**	**3,681,295**	**1,835,770**	**-42.94%**	**14.42%**

LPSCO

LITCHFIELD PARK SERVICE COMPANY

111 W. WIGWAM BLVD., SUITE B LITCHFIELD PARK, AZ 85340 (623) 935-9367

March 15, 2005

Michele Kogl, Development Services Manager
Gerald Toscano, Senior Engineer
Maricopa County DOT
2901 W. Durango St.
Phoenix, AZ 85009

Re: Financial Assurance for Jackrabbit Estates, Savannah, and Zanjero Trails Subdivisions

Dear Ms. Kogl & Mr. Toscano,

This letter is presented by Litchfield Park Service Company (LPSCO) to advise you that the owners of the parcels comprising the Jackrabbit Estates, Savannah, and Zanjero Trails subdivisions have posted satisfactory assurance to LPSCO of the financial capability and intent to complete all off-site or back bone infrastructure necessary to make sewer service available to the subdivisions. This demonstration was performed by the owners of the above listed planned subdivisions by way of the establishment of an escrow account with First American Title Insurance Company (escrow number 402-44311106) and deposit therein of cash and letters of credit in the amount of $5,395,428.77, the sum of which is of sufficient magnitude to finance the cost of design and construction of those necessary facilities. These funds will not be released back to the owners until MCDOT is satisfied with the completion of the project, nor will these funds be used for purposes other than the design and construction of the facilities. LPSCO will be responsible for construction of said facilities in the event of default by the Developers.

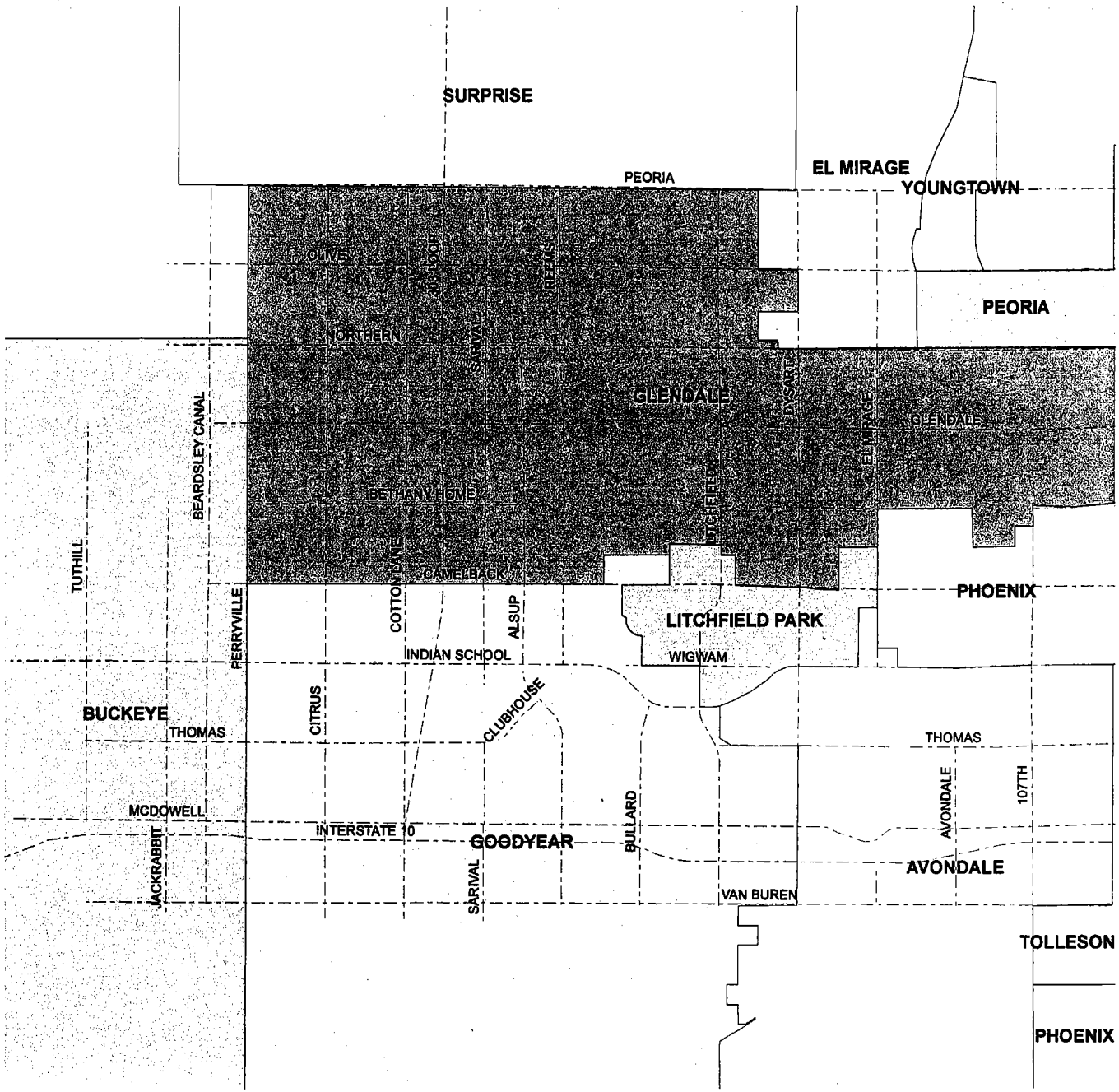
I hope that this letter meets your needs and requirements. Should you have any questions or require additional information, please do not hesitate to contact me at your convenience.

Sincerely,

Michael D. Weber

Michael D. Weber, P.E.
Vice President & General Manager

EXHIBITS



Wood/Patel

Civil Engineers
Hydrologists
Land Surveyors
Construction Managers

0 1 2 4
Miles

11/08/05

Legend

Alignments

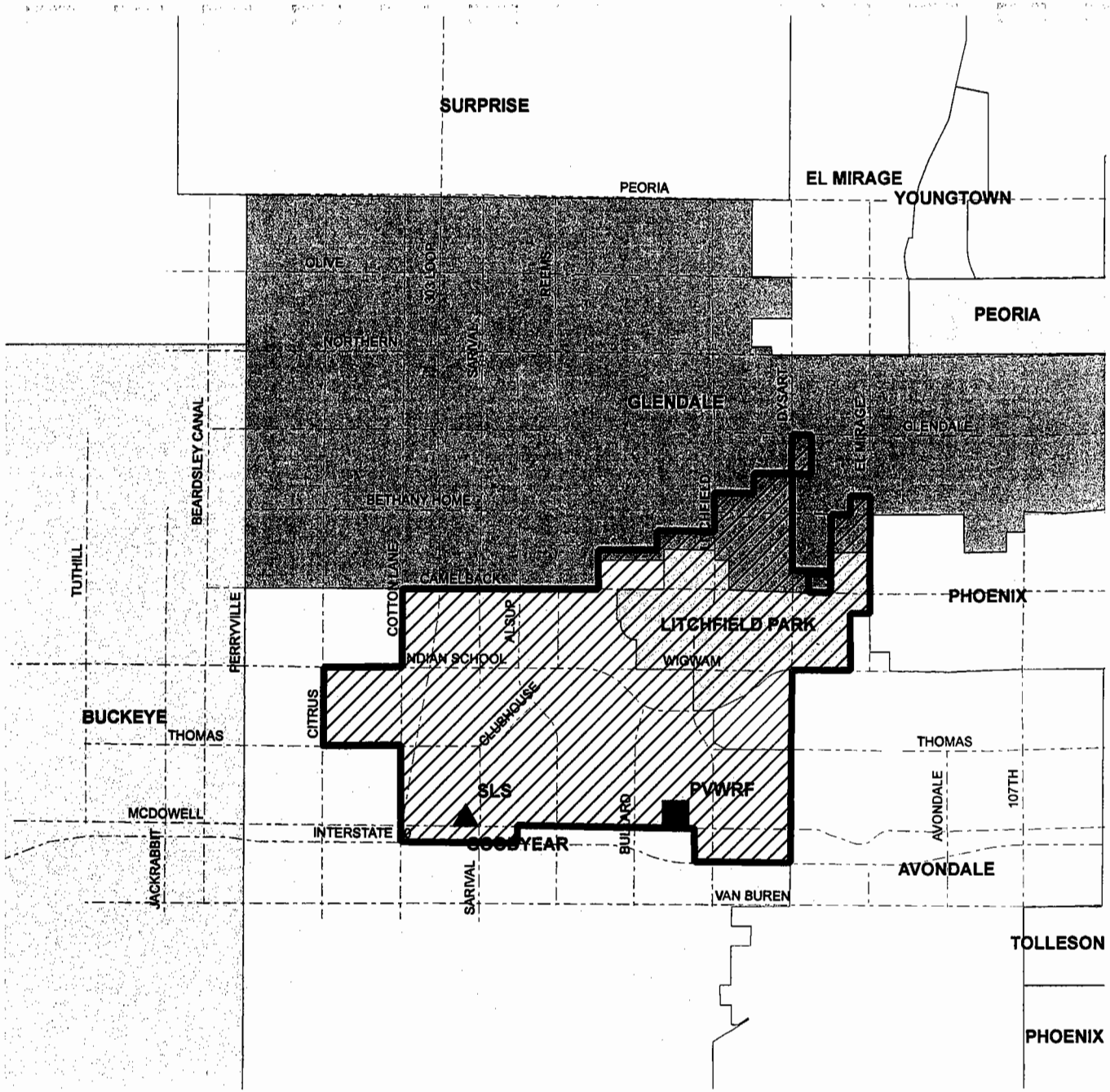
Municipal Planning Areas

- AVONDALE
- BUCKEYE
- EL MIRAGE
- GLENDALE
- GOODYEAR
- LITCHFIELD PARK
- PEORIA
- PHOENIX
- SURPRISE
- TOLLESON
- YOUNGTOWN

Northwest Valley Development Group
MAG 208 Amendment for LPSCo
Wood Patel & Associates, Job # 042027

Project Area

Exhibit 1



Base data provided by LPSCo
from Draft Wastewater Master Plan,
Carollo Engineers

Wood/Patel

Civil Engineers
Hydrologists
Land Surveyors
Construction Managers

0 1 2 4
Miles

11/08/05

Legend

Alignments

Sewer Service area

Existing

Facilities

PVWRF

SLS

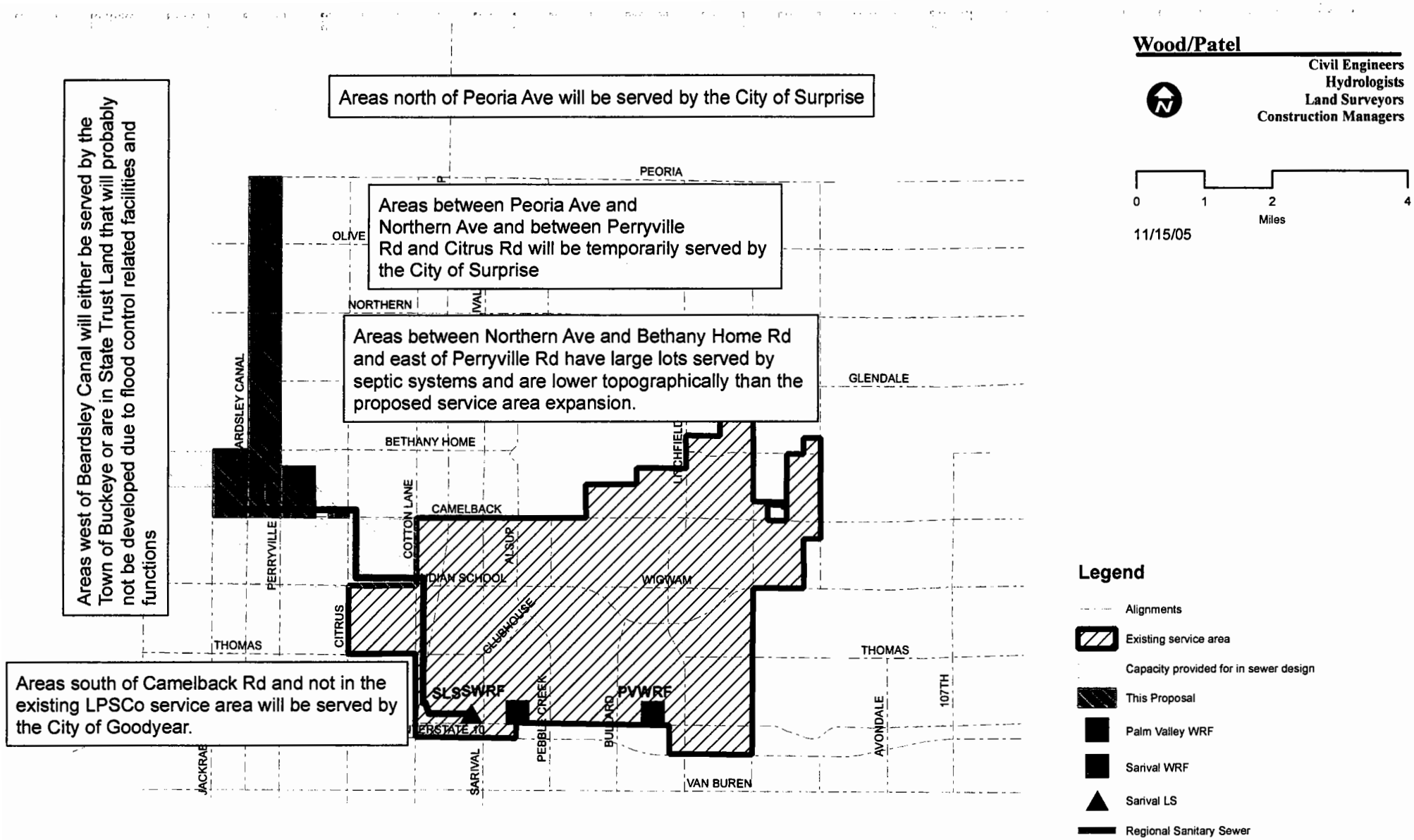
Municipal Planning Areas

AVONDALE
BUCKEYE
EL MIRAGE
GLENDALE
GOODYEAR
LITCHFIELD PARK
PEORIA
PHOENIX
SURPRISE
TOLLESON
YOUNGTOWN

Northwest Valley Development Group
MAG 208 Amendment for LPSCo
Wood Patel & Associates, Job # 042027

Existing LPSCo Service Area

Exhibit 2



Wood/Patel

Civil Engineers
Hydrologists
Land Surveyors
Construction Managers

0 1 2 4
Miles

11/15/05

Legend

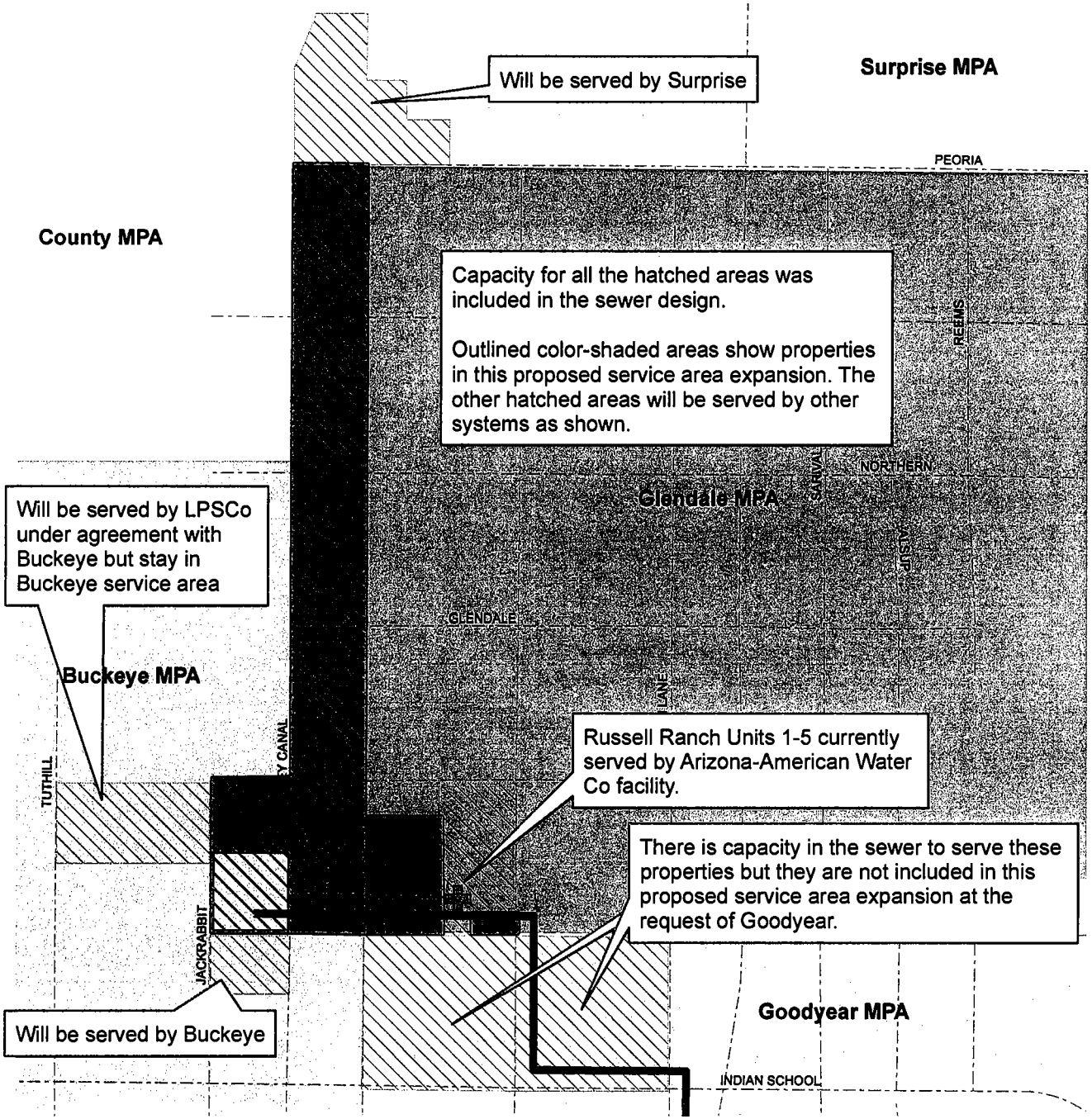
- Alignments
- Existing service area
- Capacity provided for in sewer design
- This Proposal
- Palm Valley WRF
- Sarival WRF
- Sarival LS
- Regional Sanitary Sewer

Base data provided by LPSCo from Draft Wastewater Master Plan, Carollo Engineers and taken from the report "White Tank Mountain Regional Sewer Solution" report by United Engineering Group.

Northwest Valley Development Group
MAG 208 Amendment for LPSCo
Wood Patel & Associates, Job # 042027

Proposed Service Area Expansion

Exhibit 3



Wood/Patel

Civil Engineers
Hydrologists
Land Surveyors
Construction Managers

0 0.5 1 2
Miles

11/15/05

Legend

- Wastewater Facilities
- Alignments
- Regional Sanitary Sewer

Properties

- BRADLEY CENTER
- JACKRABBIT ESTATES
- RUSSELL RANCH
- SAVANNAH
- ZANJERO TRAILS
- Capacity provided for in sewer design

Northwest Valley Development Group
MAG 208 Amendment for LPSCo
Wood Patel & Associates, Job # 042027

Properties Served By This Expansion

Exhibit 4

AFFIDAVIT OF PUBLICATION

PUBLIC HEARING ON THE DRAFT MAG 208 WATER QUALITY MANAGEMENT PLAN AMENDMENTS FOR THE SERVICE AREA EXPANSION OF THE LITCHFIELD PARK SERVICE COMPANY PALM VALLEY AND SARIVAL WATER RECLAMATION FACILITIES AND THE TOWN OF BUCKEYE ANTHEM AT SUN VALLEY SOUTH AND TARTESSO EAST WATER RECLAMATION FACILITIES

Tuesday, April 25, 2006 at 3:00 p.m.

MAG Office, Suite 200 - Saguaro Room 302 North 1st Avenue Phoenix, Arizona 85003

The Maricopa Association of Governments (MAG) will conduct a public hearing on the Draft MAG 208 Plan Amendments for the Service Area Expansion of the Litchfield Park Service Company Palm Valley and Sarival Water Reclamation Facilities and the Town of Buckeye Anthem at Sun Valley South and Tartesso East Water Reclamation Facilities. The purpose of the hearing is to receive public comment on the draft amendments.

As described in the first draft amendment, the Town of Buckeye, City of Glendale, and Maricopa County have expressed interest in the provision of sewer service by the Litchfield Park Service Company Palm Valley and Sarival Water Reclamation Facilities located in the Goodyear Municipal Planning Area to developments within their planning areas. The facilities are identified in the current MAG 208 Plan with reserve capacity to accommodate the sewer service needs of these developments.

As described in the second draft amendment, the proposed Buckeye Anthem at Sun Valley South Water Reclamation Facility would have an ultimate capacity of 4.5 million gallons per day (mgd) and reclaimed water would be disposed of through reuse, recharge, and an Arizona Pollutant Discharge Elimination System (AZPDES) Permit discharge. The receiving stream for the AZPDES Permit discharge would be an unnamed wash tributary to the White Tanks Wash. Flow from the White Tanks Wash would be retained in the Flood Retardant Structure (FRS) No. 1 on the north side of Interstate 10. The FRS No. 1 is designed to retain flows from approximately the 100-year storm event. Beyond this storm event, flow would be discharged from the FRS No. 1 into the Hassayampa River.

The proposed Buckeye Tartesso East Water Reclamation Facility would have an ultimate capacity of 9.6 mgd and reclaimed water would be disposed of through reuse, recharge, and an AZPDES Permit discharge. The receiving stream for the AZPDES Permit discharge would be an unnamed wash. Flow from the wash would be retained in the FRS No. 1 on the north side of Interstate 10. Beyond the 100-year storm event, flow would be discharged from the FRS No. 1 into the Hassayampa River.

Following consideration of comments received, it is anticipated that the MAG Water Quality Advisory Committee will make a recommendation to the MAG Management Committee. On May 10, 2006, the MAG Management Committee is anticipated to make a recommendation to the MAG Regional Council. It is anticipated that the MAG Regional Council will take action of the draft plan amendments on May 24, 2006.

The draft documents will be available for public review at the MAG Office from 8:00 a.m. to 5:00 p.m. Monday through Friday beginning March 13, 2006. Copies will also be available for review at the Glendale Public Library, 5959 W. Brown Street; City of Mesa Library, 64 E. First Street; and Phoenix Central Public Library, 1221 N. Central Avenue. Public comments are welcome at the hearing, or may be submitted in writing by 3:00 p.m. on April 25, 2006 to MAG staff at the address below.

Contact Person: Julie Hoffman
302 North 1st Avenue, Suite 300 Phoenix, Arizona 85003
Fax: (602) 254-6490
06152-March 11, 2006

THE ARIZONA REPUBLIC

STATE OF ARIZONA
COUNTY OF MARICOPA } SS.

Ondrea Sheppard, being first duly sworn, upon oath deposes and says: That she is the marketing/sales lead of the Arizona Business Gazette, a newspaper of general circulation in the county of Maricopa, State of Arizona, published at Phoenix, Arizona, by Phoenix Newspapers Inc., which also publishes The Arizona Republic, and that the copy hereto attached is a true copy of the advertisement published in the said paper on the dates as indicated.

The Arizona Republic

March 11, 2006

Ondrea Sheppard

Sworn to before me this
13TH day of
March A.D. 2006

OFFICIAL SEAL
MARILYN GREENWOOD
NOTARY PUBLIC-ARIZONA
MARICOPA COUNTY
My Comm. Expires May 23, 2007

Marilyn Greenwood
Notary Public

MARICOPA ASSOCIATION of GOVERNMENTS

302 North 1st Avenue, Suite 300 ▲ Phoenix, Arizona 85003
Phone (602) 254-6300 ▲ Fax (602) 254-6490
E-mail: mag@mag.maricopa.gov ▲ Web site: www.mag.maricopa.gov

March 15, 2006

TO: Interested Parties for Water Quality

FROM: Julie Hoffman, Environmental Planner

SUBJECT: PUBLIC HEARING ON THE DRAFT MAG 208 WATER QUALITY MANAGEMENT PLAN AMENDMENTS FOR THE SERVICE AREA EXPANSION OF THE LITCHFIELD PARK SERVICE COMPANY PALM VALLEY AND SARIVAL WATER RECLAMATION FACILITIES AND THE TOWN OF BUCKEYE ANTHEM AT SUN VALLEY SOUTH AND TARTESSO EAST WATER RECLAMATION FACILITIES

Public Hearing
April 25, 2006 at 3:00 p.m.
MAG Office, Saguaro Room
302 North 1st Avenue, Second Floor
Phoenix, Arizona 85003

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The proposed Buckeye Tartesso East Water Reclamation Facility would have an ultimate capacity of 9.6 mgd and reclaimed water would be disposed of through reuse, recharge, and an AZPDES Permit discharge. The receiving stream for the AZPDES Permit discharge would be an unnamed wash. Flow from the wash would be retained in the FRS No. 1 on the north side of Interstate 10. Beyond the 100-year storm event, flow would be discharged from the FRS No. 1 into the Hassayampa River.

For your information and convenience, a copy of the public hearing notice is enclosed. The draft documents are available for public review at the MAG Office, third floor from 8:00 a.m. to 5:00 p.m. Monday through Friday. Copies are also available for review at the Glendale Public Library, 5959 West Brown Street; City of Mesa Library, 64 East First Street; and Phoenix Central Public Library, 1221 North Central Avenue. For further information or to submit written comments on the draft amendments prior to the hearing, please contact me at (602) 254-6300.

PUBLIC HEARING ON THE DRAFT MAG 208 WATER QUALITY MANAGEMENT PLAN AMENDMENTS FOR THE SERVICE AREA EXPANSION OF THE LITCHFIELD PARK SERVICE COMPANY PALM VALLEY AND SARIVAL WATER RECLAMATION FACILITIES AND THE TOWN OF BUCKEYE ANTHEM AT SUN VALLEY SOUTH AND TARTESSO EAST WATER RECLAMATION FACILITIES

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MAG Office, Suite 200 - Saguaro Room
302 North 1st Avenue
Phoenix, Arizona 85003

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The proposed Buckeye Tartesso East Water Reclamation Facility would have an ultimate capacity of 9.6 mgd and reclaimed water would be disposed of through reuse, recharge, and an AZPDES Permit discharge. The receiving stream for the AZPDES Permit discharge would be an unnamed wash. Flow from the wash would be retained in the FRS No. 1 on the north side of Interstate 10. Beyond the 100-year storm event, flow would be discharged from the FRS No. 1 into the Hassayampa River.

Following consideration of comments received, it is anticipated that the MAG Water Quality Advisory Committee will make a recommendation to the MAG Management Committee. On May 10, 2006, the MAG Management Committee is anticipated to make a recommendation to the MAG Regional Council. It is anticipated that the MAG Regional Council will take action of the draft plan amendments on May 24, 2006.

The draft documents will be available for public review at the MAG Office from 8:00 a.m. to 5:00 p.m. Monday through Friday beginning March 13, 2006. Copies will also be available for review at the Glendale

Public Library, 5959 W. Brown Street; City of Mesa Library, 64 E. First Street; and Phoenix Central Public Library, 1221 N. Central Avenue. Public comments are welcome at the hearing, or may be submitted in writing by 3:00 p.m. on April 25, 2006 to MAG staff at the address below.

Contact Person: Julie Hoffman
302 North 1st Avenue, Suite 300
Phoenix, Arizona 85003
Fax: (602) 254-6490

PUBLIC HEARING ON THE DRAFT MAG 208 WATER QUALITY MANAGEMENT PLAN AMENDMENTS FOR THE SERVICE AREA EXPANSION OF THE LITCHFIELD PARK SERVICE COMPANY PALM VALLEY AND SARIVAL WATER RECLAMATION FACILITIES AND THE TOWN OF BUCKEYE ANTHEM AT SUN VALLEY SOUTH AND TARTESSO EAST WATER RECLAMATION FACILITIES

Phoenix, Arizona
April 25, 2006
3:15 p.m.

Glennie
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Prepared by:
Janet Hauck, RPR
Arizona Certified
Reporter Number 50522

Prepared for:
Maricopa Association of
Governments

(Original)

The Public Hearing was taken on April 25, 2006, commencing at 3:15 p.m., at the offices of the Maricopa Association of Governments, 302 North 1st Avenue, Suite 200, Phoenix, Arizona, before JANET HAUCK, RPR, a Certified Reporter, Certificate No. 50522, for the State of Arizona.

Committee Members Present:

Roger Klingler, City of Scottsdale, Chair
Scott Lowe for Lucky Roberts, Town of Buckeye
Lawrence Brotman for Chris Ochs, City of Glendale
David Iwanski, City of Goodyear
Robert Hollander, City of Phoenix
Rich Williams, Sr., City of Surprise
David McNeil, City of Tempe
Ken James for John Power, Maricopa County

Committee Members Attending by Telephone Conference Call:

Robert Goff for Jacqueline Strong, City of Chandler
Bill Haney, City of Mesa
Kris Budak for Stephen Bontrager, City of Peoria

Others Present:

Ken Reedy, City of Glendale
Damon Dequenne, Town of Buckeye
Steven Borst, Town of Buckeye
Julie Finke, Arizona Dept. of Environmental Quality
Edwina Vogan, Arizona Dept. of Environmental Quality
Paul Gilbert, Beus Gilbert
Felipe Zubia, Beus Gilbert
Doug Kobrick, CDM
Sheila Logan, CMX
John Tyldesley, CSA Engineering
Michael Cronin, Element Homes
Mike Kocourek, Element Homes
Jim Condit, JF Properties
Keith Watkins, JF Properties

Others Present, Continuing:

Duong Do, PACE
Steven Owen, PERC
Jerry Copeland, Wood Patel
Julie Hoffman, Maricopa Association of Governments
Ann Wimmer, Maricopa Association of Governments

* * *

MR. KLINGLER: What I would like to do is open the public hearing on our Draft MAG 208 Plan Amendments for the Service Area Expansion of Litchfield Park Service Company, Palm Valley and Sarival Water Reclamation Facilities and the Town of Buckeye Anthem at Sun Valley South and Tartesso East Water Reclamation Facilities.

So, we'll begin with a briefing on each draft amendment. Then following the briefings, the hearing participants are invited to make comments for the public record.

A court reporter is present to provide an official record of the hearing. Written comments are also welcome. For those wishing to speak on the draft amendments, please fill out a yellow card and hand it to MAG staff.

First, I believe we're going to have Jerry Copeland from Wood Patel give us a briefing on the LPSCo service area expansion; is that correct, Jerry?

MR. COPELAND: Yes. This is a photograph of the Palm Valley Water Reclamation Facility. It's a beautiful facility, odorless and much appreciated by the community.

This slide is to orient you geographically to

the proposed expansion area. The northern part of it is a small area of Maricopa County, a sliver of the Buckeye metropolitan planning area, and a small corner of the Glendale planning area.

This is the Buckeye metropolitan area map. And again, you can see there's a little sliver of the upper northeast corner of the Buckeye planning area being included. This is the part that's in the county, and this is the area that's in the City of Glendale.

This is a map of the current Litchfield Park Service Company service area. The Palm Valley reclamation plant is in existence here. The Sarival water reclamation plant that is proposed is located right in this area.

This is a map that shows the proposed expansion area in green, a regional sanitary sewer line in the dashed green and black, and the existing service area shown in red.

The need for this expansion is primarily because properties in this area found themselves on the fringe of the metropolitan planning areas some distance from any existing sewer and faced with either acre lots and septic tanks or individual packaged wastewater treatment plants.

As a group of developers, they were

encouraged by the county to do something regional, that is, to not piecemeal the development of that area. And the coordination and the consortium formed by these developers resulted in the acreages that you're seeing in green plus a regional sanitary trunk sewer to serve the area to the existing Palm Valley water reclamation plant.

The original plant was constructed at 4.1 MGD and was built with an excess capacity of 38 percent. That excess capacity is far more than is needed by the proposed expansion. Therefore, there are no proposed changes to the wastewater treatment facility at all.

This is a slide showing the individual properties that form the consortium that will be served by this expansion.

With that, I'll open it up to questions.

MR. KLINGLER: Thank you, Jerry. Just to follow up a couple questions I noticed we had last time. One was concerning the discussion with the Corporation Commission. I think a meeting or a hearing was scheduled. Is that still underway, or has that already taken place?

MR. COPELAND: That is still underway. The meetings have taken place. The hearing has been conducted, and there are some details being ironed out.

MR. KLINGLER: Okay. Then there was also a question about the discussion with Arizona American Water Company, I think, for some of the service area, that there was going to be some discussion. Has that taken place or that is underway, also?

MR. COPELAND: Discussions have taken place. And I don't believe there's a resolution yet, but that will be an ongoing process between the water company and LPSCo.

MR. KLINGLER: Are there any other questions at this time from the members of the committee?

MR. HOLLANDER: Let me ask kind of a procedural question. If this amendment is for expansion of Litchfield Park service area, the committee can recommend that to go through despite the status of the meetings that are currently between Arizona American and Litchfield Park Service Company?

MR. KLINGLER: Yeah, the committee has that ability, if you choose not to --

MR. HOLLANDER: -- for that process to have to work that out. We're just approving this part of it.

MR. KLINGLER: Right.

MR. COPELAND: I might remind you that the agreement between LPSCo and the water company is not a

requirement of the county. And as a matter of fact, both entities enjoy a CC&N for their service area. So, they both have a right to operate as they currently do. However, it's been recognized by Maricopa County and everyone involved that it would be a good idea to eliminate that small treatment facility at what's called Russell Ranch Phase 6.

The county has requested and the applicant has agreed to pursue negotiations with the water company with that objective in mind until they can serve it. Capacity for the Russell Ranch area is in the pipeline. It can easily be served. It's just a matter of the water company and LPSCo coming to an agreement over the water company giving up their CC&N and expanding the CC&N of LPSCo to take care of it.

MR. KLINGLER: Thank you, Jerry. Now we'll have Sheila Logan of CMX provide a briefing on the Buckeye Anthem at Sun Valley South and Tartesso East water reclamation facilities.

MS. LOGAN: Thank you. Knowing that you've seen this all before, we'll go pretty fast. The Town of Buckeye municipal planning area shown on the right and then zoomed into the left is the area that shows their existing plants or proposed plants that have been through the 208 process including the two that I'm here

to talk about today, the Anthem at Sun Valley South water reclamation facility with a proposed capacity of 4.5 million gallons per day and the Tartesso East water reclamation facility with a proposed capacity of 9.6 million gallons a day.

The Town of Buckeye, of course, is growing quite rapidly. And this just shows the RAZ, the region analysis zone boundaries, that correspond to the population projections on the previous slide.

The proposed service area for the Anthem and Sun Valley South plant includes the 4,000 acre Anthem at Sun Valley South project and an additional approximately 3,300 acres. The Tartesso East water reclamation facility includes the service area for the 6,000 acre Tartesso East project and an additional approximately 4,500 acres.

There's no private wastewater utilities in either of the service areas. There are some private water utilities. The Anthem at Sun Valley South project will include a number of gravity collector sewers, and this proposed plant services this area and the additional off-site areas by gravity.

The project ultimately, including the off-site areas, would include about 13,000 dwelling units and 37,000 people. The plant would be phased

according to the proposed build-out of the development meeting the average day of the maximum month in the early phases.

The treatment technology is proposed -- again, we're talking about the Anthem at Sun Valley South plant. The treatment technology proposed is the multiphase sequencing batch reactor. It would have tertiary treatment and meets class A+ quality effluent and class B biosolids. Everyone is familiar with the A+ quality standards.

Effluent would be proposed for reuse through turf irrigation and open space irrigation, and they would also propose a groundwater recharge facility adjacent to the plant site.

The plant would also have an emergency discharge option or apply for a AZPDES permit for emergency discharge into an unnamed wash adjacent to the plant site that's tributary to White Tanks Wash and tributary to FRS Number 1 operated by the Flood Control District of Maricopa County. That flood retarding structure has a limited hydrologic connection to the Hassayampa River. I think over the last 20 years it discharged maybe 13 times. And there's a culvert or a pipe that drains that facility.

Of course, the plant would require a number

of other permits, approvals through Maricopa County, ADEQ and the Town of Buckeye, to name a few. The plant is contemplating or should have design complete this summer, construction beginning in the fall, late fall or over the winter next year, and look at startup and operation in the spring or summer of next year.

The plant construction design-build and initial operation will be financed by Pulte Homes with the contract for that to be taken over by the Town of Buckeye.

Before I go on, are there any questions on the Anthem at Sun Valley South plant?

MR. KLINGLER: Go ahead.

MS. LOGAN: The second plant is the Tartesso East water reclamation facility. The Tartesso East plant proposes to serve a total of approximately 10,000 acres including ultimately approximately $29,000 dwelling units or 82,000 people for an ultimate capacity, again, of 9.6 million gallons per day. The plant would be phased in accordance with the projected build-out of the development.

The treatment technology would initially be the sequencing batch reactor. When it reaches the approximate capacity around 4 1/2 or 5 MGD, the plant would be converted over to an MLE process in concert

with the Town of Buckeye's standard, if you will.

Again, the plant would produce A+ quality effluent, have full odor and noise control, produce class B biosolids. Skip this one.

Effluent from this plant would also be used for potential golf course and turf irrigation. There's a potential for a lake community, and they would also provide groundwater recharge.

Similar to the Anthem at Sun Valley South plant, a AZPDES permit would be pursued for emergency discharge. This point would be to an unnamed wash that's tributary almost directly to the flood retarding structure. Again, there's a number of other permits and approvals that would be required along the way.

The project scheduled for this plant design is anticipated in 2008, construction in 2009 or 2010, and startup in 2010. The financing of this plant would be through the ~~startup~~ Stardust communities with a contract for ultimate operation and management by the Town of Buckeye.

MR. KLINGLER: Any questions at this point? Okay, thank you. At this time, we invite any public comments. Julie, did we get any cards? Nobody from the public commenting at this point.

Okay, then at this time, I'd like to close

the public hearing and ask the court reporter to end the transcription. Thank you.

(The public hearing portion of the proceedings concluded at 3:31 p.m.)

STATE OF ARIZONA)
)
COUNTY OF MARICOPA)

I, JANET HAUCK, a Certified Reporter, Certificate No. 50522, in the State of Arizona, do hereby certify that the foregoing pages constitute a full, true, and accurate transcript of all proceedings had in the foregoing matter, all done to the best of my skill and ability.

I FURTHER CERTIFY that I am not related to nor employed by any of the parties hereto, and have no interest in the outcome hereof.

WITNESS my hand this 10th day of May, 2006.

Janet Hauck

Janet Hauck, RPR
Arizona Certified
Reporter No. 50522